

The Summer Outing: Also the Emergency-Case

AT about this time a good many of our readers are getting ready for their annual summer vacation. Every human being wants a vacation—surcease from humdrum work. The child would like to have it twelve months in the year. But, as it grows older and loses its pristine innocence and the cares of life eat into its soul, its heart becomes encrusted with the rust and scale of selfishness and labor, until the time comes when, a grownup man, he is so encased that he no longer feels the anticipated pleasure of an outing. Then he might as well be buried, for any use he is to humanity.

It is to the man of a family especially that the summer outing commends itself. He can throw off the cares and annoyances of life for a time and revert to the unforgotten pleasures of childhood. He can get rid of the women for a few weeks; that is, if he is lucky enough to have found a place to which they are as yet unable to penetrate. Just now he probably is echoing the words of that lovely poem—written many years ago, by, I believe, Mrs. Hemans, and which begins about like this: "Tell me ye winged winds that 'round my pathway roar, is there some spot on earth where women come no more?"

To my regret, I have forgotten the rest of the poem alluded to, but, if any man is fortunate enough to know of such a place as yet unspoiled, he will go there, get rid of most of his clothes and the other accessories of civilization, and lie around to his heart's content: smoke, cuss a little if so inclined (not that he particularly wants to cuss, but he likes to realize that he may cuss if he wants to), cook—or, if he be wise, "let George do it"; and the probabilities are that he will eat like a wolf, and at the end of his allotted season come home hearty, brown, rugged, and in reasonably good temper.

However, it will not be many years before this happy creature's elysian retreat will have been invaded by the eternally feminine element of humanity and thenceforth spoiled for all practical purposes. For, while man is willing occasionally to relax his warfare and take a rest, woman will never do so willingly.

Characteristically woman, having once established herself within our entrenchment, proceeds to make herself at home and us fellows miserable. You have to wash your face, shave, put on clean linen, and even blacken your boots whenever she is around. For a while she may pretend that she will

join in our outing as a chum, and possibly do so for one short season, but by the next one she begins to smuggle in drygoods and to put them on. And, whenever one woman does this, all the rest follow suit, and each tries to outdo the best one. *We*—poor Adams—then have to up stake and hunt up another, still more remote abode.

But, let us return to our original subject. One of the first things necessary for enjoying an outing is, to cut out work. We spurn all luxury, in order to reduce the list of necessities to the smallest number of items, and these of the lightest possible nature. For some years, we have carried, in our outings, the emergency-case put up by The Abbott Laboratories, and have found it altogether the most comprehensive and satisfactory that we have ever taken. Not that we always find it in everything we happen to want. Certainly not! For, were we to take four No. 8 medicine-cases, each containing a hundred bottles, we still should find that there were one or two remedies that we required but which had not been included, besides discovering that we needed much more of one or two of the remedies than the vials hold. We determine that "next year we shall fill two or three bottles with this particular remedy," then, if we do so, we may not have need for a solitary dose of it, while, though, we have urgent need for the very things that we left out in order to make room for the extras.

No matter how small the pack one carries, it should contain a few purgative pills and a little tincture of iodine, for wounds. Also, some strychnine tablets for snake bite are very good to have. The four slim vials of the hypodermic case may contain strychnine, atropine for hemorrhages, apomorphine for producing emesis, and the H-M-C for any of the innumerable occasions that possibly may arise in which an anodyne-anesthetic combination like that will be required. Were we to add to this list only one thing more above any other, it would be tablets of potassium permanganate, for testing the purity of the drinking-water. But, as no noxious germ will withstand boiling, perhaps it is sufficient if we rely upon tea as a beverage, boiling the water thoroughly.

If one were to carry with him all of the drugs and surgical appliances that could, by any possibility, be required on a month's trip in the wilderness, he would have to have a motor truck or a two-horse wagon to convey them. This emergency-case has been studied out so well, that it is practically impossible to think of any emergency at all likely to

happen for which one will not be amply provided. The case will go into an overcoat-pocket easily. The present writer has tried it for five years, and has not had occasion to go outside of its limits for additional drugs.

The hurry of the times affects us so
In this swift, rushing hour, we crowd, and press,
And thrust each other backward, as we go,
And do not pause to lay sufficient stress
Upon that good, strong, true word, Earnestness.
In our impetuous haste, could we but know
Its full, deep meaning, its vast import, oh,
Then might we grasp the secret of success!

Ella Wheeler Wilcox—

ACUTE ANTERIOR POLIOMYELITIS

The whole country has become greatly alarmed about the epidemic of infantile paralysis now prevailing in New York City. At this writing, 1440 cases, with 287 resulting deaths, have been reported. In spite of the efforts that have been made by the municipal authorities and the United States Public Health officials, the number of cases occurring in Greater New York continues to increase, and there is some reason to fear that there may be outbreaks of the epidemic in other parts of the country. A few cases have been reported in Chicago, as also in many other sections; but their number is no greater than is common at this time of the year. There is no special cause for alarm, nevertheless it certainly is the part of wisdom to be prepared, and every physician should familiarize himself with the symptoms of epidemic poliomyelitis, so that he may be able to recognize it quickly and treat it energetically from the very start.

Anterior poliomyelitis is now known to be a contagious disease. Flexner has definitely shown that the infecting agent belongs to the group of so-called filterable viruses, and that the organism is an exceedingly minute one, although its exact nature has not yet been positively determined. The portal of entry of the virus is the upper respiratory tract, particularly the nasal cavities, which are in direct communication with the meninges, by way of the lymphatics. The first pathologic change, therefore, is an acute interstitial meningitis; but with the advance of the process the infiltration follows the vessels as they enter the anterior portion of the cord from the meninges. There is hemorrhagic exudation around these vessels, pressure on the nerve-cells, anemia of these cells, and finally degeneration.

The nasal discharges convey the organism from person to person, and Sawyer, in his

recently published study of the California epidemic of 1913, states that it also was conveyed in the rectal washings obtained from a patient fourteen days after the beginning of paralysis. The infectious substance may be carried by garments, bedding, handkerchiefs, foodstuffs, and other articles soiled with the body discharges, as well as by kissing, coughing, and sneezing, very much as is the case with other contagious diseases, such, for instance, as scarlet-fever, diphtheria, and typhoid fever. It is highly probable that the virus may also be conveyed by the bites of insects, as lice, fleas, and flies. Rosenau advanced the theory that the disease-germ was transmitted by the bite of the stable-fly, the stomoxys calcitrans, and our friend Dr. Philip A. E. Sheppard, of Boston, who officially investigated this problem for the state of Massachusetts, still is confident that this is the method of conveyance. Sheppard bases his belief, in part, on the fact that the occurrence of the disease in epidemic form frequently is concurrent with the life-incidence of this fly.

Probably more important, however, than insects or fomites, in the transmission of poliomyelitis, is the carrier—the individual who himself is suffering from the disease in a mitigated form. There is a growing belief that the so-called abortive type of poliomyelitis plays much the same part in its distribution as does the typhoid-carrier in the transmission of that disease. It is declared that from 25 to 56 percent of persons attacked by poliomyelitis suffer from this mild form, in which the symptoms are so slight as usually to go unrecognized.

Infantile paralysis is, generally speaking, a disease of the summer and fall months. In the New York epidemic of 1907, the outbreak began in July and reached its maximum in September. As a rule it disappears before the cold weather sets in, although winter epidemics have occurred. Childhood is the age of susceptibility. According to Peabody, Draper, and Dochez, whose experience is verified by that of Mueller, 96 to 97 percent of the patients are 10 years old or younger, while 89 to 90 percent are below the age of 5 years. Perhaps the age most liable to infection is the latter half of the second year. In the New York epidemic of 1907, just cited, in which 729 cases were reported, 7 of the patients were between 9 and 10 years of age, 14 between 10 and 15, 5 between 15 and 20, 1 between 20 and 25, and 2 over 25 years of age; all the remainder being very young. Wickman tells of one man 46 years of age who suffered from the disease, and in the Vermont

epidemic (reported in *Vermont Medicine*, Feb., 1916) there was one patient of 38.

There is considerable difference of opinion with regard to the length of the period of incubation, but the consensus of opinion is, that it usually varies between five and ten days, with an average of about a week.

The early symptoms are of such a general character that it is difficult to identify them as being characteristic of poliomyelitis. In some epidemics, these symptoms closely simulate those of an ordinary cold, being largely referable to the respiratory tract; while in other epidemics they are of a gastrointestinal type, beginning with gastric disturbances, vomiting, and often diarrhea. The gastrointestinal type seems to be the most common in the prevailing New York epidemic. Fever is practically always present, though generally it is slight. It very rarely exceeds 103° F., the temperature ordinarily being in the neighborhood of 99 and 99.5 degrees. Profuse sweating is mentioned by Mueller as one of the cardinal symptoms of the early stage of the attack, although this by no means is constant. Other symptoms that are quite characteristic, and of considerable diagnostic value in making an early diagnosis when there is an epidemic of poliomyelitis, are: drowsiness, nervous irritability, hyperesthesia, and pain on passive motion. Stiffness of the neck and resistance to flexion are very common. Attempts to test for the Kernig sign often cause discomfort, while pain in the head, back of the neck, back or legs often is present; in fact, pain in some form is a constant feature of acute poliomyelitis. A not uncommon forerunner of paralysis is weakness of the muscles. There may be muscular twitchings, and very rarely convulsions.

The blood-picture is of comparatively little value in making a differential diagnosis. In some cases, there is a low leukocyte count; in others this is high. More can be learned from an examination of the spinal fluid, which often exhibits a striking increase in the number of cells per cubic millimeter and sometimes an increase in the globulin content.

In the most common form of the disease, paralysis of one or more muscles appears on the first or second day after the febrile onset; still, it may be delayed for several days. "At this time," say Peabody, Draper, and Dochez, "the child may be found on its back, with thighs slightly flexed and everted in a froglike manner, and the head usually rotated to one side. The eyes are partly or wholly closed and there is a peculiar tired, wilted

expression. Not infrequently the chin is pointed upward a little, indicating a small degree of retraction. From this drowsy or almost sleeping condition, the child can be roused suddenly, often by the gentlest touch or manipulation. Very frequently, when the leg is lifted only a few inches from the bed, an expression of annoyance, rather than of distress, crosses the face, and if the leg be the paralyzed one the child often tries to free it from the examiner's hands by twisting the trunk and shoulders. This procedure is a surprisingly common one and is usually accompanied by a pettish, fretful, rather bored look and whine; but when the examiner stands back from the bed the patient lapses almost at once into the drowsy state."

In the more severe forms, the child is likely to lie on its side, with the head drawn back, the thighs flexed, and occasionally there is true opisthotonos. As a rule, all these patients have what is described as a "drowsy, wilted look," although rarely they may be brighteyed and present an anxious, apprehensive, rather frightened expression. They are practically always afraid to be touched and cry out on the approach of the nurse or the doctor.

The paralysis is most likely to attack the lower extremities. In 808 cases reported by Wickman, the paralysis was limited to the legs in 43.69 percent; one or both legs were affected in 85.64 percent. The paralysis does not necessarily present an unfavorable prognosis, since about 44 percent recover the use of the affected members, while many of the remainder are only slightly disabled. Recovery is more likely to occur in older patients.

The mortality, as a rule, varies between 10 and 20 percent. In the present New York epidemic it has been high, approximately 20 percent or more. When death occurs, it results from paralysis of respiration. It has been observed by Peabody and his associates that in fatal cases the patients are very ill for the first two or three days. In a series which they report, *all those who died had paralysis of one or both deltoid muscles, thus indicating inflammation of the cervical cord.* The extreme prostration and the upper-extremity paralysis, unless the attack was of the rapidly ascending type, were the only tangible diagnostic features. Another interesting feature of these fatal cases has been the transformation in the mental character of the patients just shortly prior to death. (See the department of What Others Are Doing, of this issue.)

In the efforts to control the spread of infantile paralysis, much emphasis is laid upon the fact that the disease is conveyed mainly by the discharges from the nose and rectum. The virus is undoubtedly present in the nasal discharge during the prodromal stage and possibly during the stage of incubation, and it is readily destroyed by hydrogen peroxide, even in 2-percent solution (stronger solutions are better), used as an irrigant for mouth and throat in persons exposed to the disease. Carbolic acid seems to be only feebly germicidal for this organism. The new antiseptic, Chlorazene, should be ideal. Of course, special attention should be paid to the nose and throat in any person suffering from the disease, care being taken to prevent soiled garments, bedding, handkerchiefs, dishes, eating-utensils, and other objects from coming in contact with uninfected persons. The stools should be sterilized with exactly the same care employed in the case of patients suffering from typhoid fever. Children who are exposed to the disease should be kept out of school for at least two weeks, and away from places of amusement where they will come in contact with other children. Complete isolation of the sick should be insisted upon.

Special attention should be given to the so-called abortive cases, that is, to individuals, old or young, who are suffering from obscure ailments of any kind during an epidemic of infantile paralysis. Any child, or older person for that matter, who is feverish, complains of drowsiness, and shows nervous irritability may be undergoing such an attack and should be quarantined until all danger has passed.

The treatment of acute anterior poliomyelitis is, on the whole, unsatisfactory. Hexamethylenamine is recommended by Cushing and Crowe, in the belief that, being excreted in the spinal fluid, it would act as an antiseptic at this point and prevent further infection. Since this recommendation first was made, it has been pointed out that hexamethylenamine is active only in an acid medium, and, since the spinal fluid is alkaline, it consequently is thought to be of very little value. However, a number have reported experience with this remedy, and in some instances the results seem to have been good. Immune serums have also been tried, but with little success. We have much faith in calcium sulphide, and calx iodata has been suggested. Southwick, in a paper published in *CLINICAL MEDICINE* (June, 1913, p. 482) reported his treatment of 10 cases, in 4 of which the patients recovered

completely from the paralysis and all of whom have slowly improved, with the exception of one, a tuberculous child.

In view of the excellent results obtained, Southwick's method of treatment seems a good one. It is as follows:

"First of all, thorough elimination was inaugurated by means of calomel and podophyllin; then followed saturation with calcium sulphide. After the acute symptoms had subsided, small doses of strychnine arsenate were persistently given, besides such other medicines as seemed indicated for special reasons. Pillows were placed so as to support the affected foot and leg in the most comfortable position. Once a day the child was sponged with a creolinated epsom-salt solution. Three times a day the nose and throat were sprayed with a 50-percent solution of hydrogen peroxide. Seeing no particular indication for urotropin [hexamethylenamine] and never having heard of its use doing good, I did not give it. Morning and night the back and legs were rubbed with warm coconut- or olive-oil, the paralyzed leg being gently massaged and subjected to passive movements. (This after all fever had left.) After the morning bath and massage, the children were placed upon a blanket on the floor, given pillows and their playthings, and were left to their own devices. Without an exception, the gentle rubbing of the back with oil and the massage of the limbs gave comfort, although at first they dreaded it."

Very little can be added to this excellent outline, but it should be remembered that a favorable outcome depends on *right* treatment given *early*; and we can not accomplish much after paralysis has set in. It is of the utmost importance that any suspicious symptoms in any child should be scrutinized carefully when infantile paralysis is about. In every such case clear the bowel quickly with small doses of calomel followed by saline draughts; maintain intestinal cleanliness with the sulphocarbolates, and nasopharyngeal antiseptics with nonirritant antiseptics, and push calcium sulphide to saturation; calx iodata may help; fever calls for aconitine or gelseminine, and nuclein is a vitalizing agent of great value. Cr  d  s silver-ointment, well rubbed in, is often helpful, while the epsom-salt baths may be given twice daily. Absolute quiet is imperative during the acute stage, and painful parts should be protected and possibly immobilized.

The treatment of the paralyzed member, and the ingenious surgical expedients in the

way of tendon transplantation for the relief of deformity, we shall not try to discuss at this time.

We shall welcome the widest possible discussion of this disease. The problem is one of vital interest. Tell us your experience.

Perhaps the best system of diet is to take a little of everything—not too little, nor yet too much—omitting all those foods which experience has shown us to be harmful. And almost everything has its use.

—Edwin F. Bowers.

INDIVIDUAL ENTERPRISES

In Europe, it is not uncommon for men to devote themselves to the cultivation and study of a single plant. This is generally done as a side issue, so that the butler who waits upon you at the table or the tailor who so beautifully restores a damaged garment may at the same time be the highest living authority on the empress narcissus or the cactus dahlia.

Work of this kind seems to commend itself to those of our profession who, through the advance of years, the accumulation of means or the sharp competition of the younger graduates, may have spare time at their disposal. One might, as we have frequently remarked, take up the cultivation of some one drug-plant, choosing, preferably, one which is native to the region where he lives; or—and here is an enormous field lying open to the investigator—one might take up some one of the native plants that thus far has not been studied, and enlighten medicine and the world at large as to its properties and possible applications.

Of the thousands of different species and varieties of native plants, comparatively few have really been studied. While not long ago visiting a town in Central Illinois, I observed with much interest the beautiful horse-chestnut trees along the street; I also saw that the sidewalks were covered with the fallen fruits, while all the trees were laden with them.

I never wholly ridded myself of early teachings, and one of the thoughts instilled into my early life was, the belief that the Creator of this world did nothing in vain. Hence, there must be a use for everything created, although to discover that use might call for considerable study. But, then, there is the Osage orange, with its strange fruit like coarse green oranges. And who, the thought came to me, can tell of any use for the abundant fruits of the Osage orange?

Upon my return to the city, I looked the matter up—first in Lloyd's—and found that the tree is known to attain a height of sixty feet, also, that the wood was formerly employed by the Indians for making bows that in toughness and elasticity approached the famous English yew. The fruit of the tree was used for dyeing yellow, after the pulp first had been removed. This is all the information Lloyd could afford, and that comes under the head of coloring-matters. That fine work, the "New American Therapeutics," by Ellingwood, makes no mention of the plant.

Now, we have these considerations to begin with: Take for instance this fruit, which is not being utilized in any manner. If it were possible, it would have been used as a food, for everything eatable has been or is being eaten. Even the acorn, while somewhat neglected at present, was the staple food of at least one race in antiquity, and has found renewed favor in Germany and Austria since the blockade pinch.

This Osage orange as an article of food seems an impossibility. We may assume that the reason why it has not been utilized as a food is, the presence of some unpleasant or dangerous principle. But an unpleasant or dangerous principle is a medicinal one. It is unpleasant or dangerous, because it acts upon some function of the human economy; therefore, it is up to us to find what principle is present and in what ways it acts upon the human body. Then we can utilize it when such an action is required.

Here is an opportunity for somebody who has the leisure, and the desire to occupy his spare hours with a useful and possibly remunerative avocation. Let him study this plant; find in what portion of the plant the greatest activity resides; what is the best means of extracting that activity; and isolate, if possible, the active principles.

All this is, by no means, a difficult task for anyone who is willing to brush up his long-forgotten chemistry, renew it, and possibly take a few lessons from some competent teacher on the methods of accomplishing the tasks which I here have outlined. Then the clinical applications will be easy; and when one has prepared a sufficient quantity of the remedy he can easily find among his brother physicians those who would assist in making these observations.

Who is there among our many thousands of readers who would like to take the opportunity of adding a new agent to our *materia medica*? One need not be afraid of overdoing

this matter. While we have very many more weapons in our arsenal than any one physician ever uses or can possibly use, if we come to study the physiology of the body and ask ourselves what we possess in the way of remedies to elevate or depress each of the innumerable functions of that body, we shall find in many instances that no remedy has been developed.

There is no reason why we should not do this work. It is a useful work; and nobody can tell until we are started how many treasures lie within our reach, but as yet undiscovered. We may thus utilize native plant remedies until the war passes and Germany gets ready to furnish us again with her chemicals. (Nota bene: This last remark was penned before that U-boat slipped in under the watchfully waiting British armada. Nevertheless, my argument still holds good.)

Better is it to have a small portion of good sense, with humility and a slender understanding, than great treasurers of science, with vain self-complacency.

Thomas A. Kempis

THE NEWER DIAGNOSIS

Doctor Slattery, in a recent number of *American Medicine*, contributes an excellent article describing some of the newer methods of diagnosing, and he speaks rather discouragingly of the old physician, whose diagnosis was always a guess. However, he might well have complimented that oldtime doctor upon the frequency with which his guess proved correct.

The whole art of diagnosis has been called in question by men who, judging simply from autopsies, have failed to reflect that these represented but a very small proportion of the physician's work. Consisting only of the cases in which therapeutics had failed, it was not to be wondered at that the diagnoses also turned out, in a large proportion of the cases posted, to have been incorrect. But, if a man during the period of his existence goes through ninety-nine illnesses and finally dies, he may safely credit the physician with ninety-nine percent of correct diagnoses—and that, in all conscience, is near enough to perfection.

It is true that with a clinical thermometer we can tell exactly what is the fever-temperature, but the older physician without the aid of this modern instrument could come within an eighth of a degree of it with almost invariable certainty. So, also, we may take the tension of the pulse by instrumental measures, but this does not teach us any more

than any expert clinician formerly ascertained by feeling the pulse. Just as the watch and clock have succeeded the methods of telling time that were employed before these machines became so common, so we today resort to—and will continue to do so—these methods of precision.

Doctor Slattery goes on to enumerate a number of the striking advantages of the new methods of precision, as follows:

Through the use of a mechanical instrument, the need of a dose of atropine was indicated; and this cured what was supposed to be a long-standing heart-block.

The same instrument discovered in a man, who had no clinical cardiac symptoms, an auricular flutter, whereupon the ailment was cured by giving digitalin.

A laboratory-man, by examining a specimen of blood, discovered nephritis in an early stage in a man who exhibited no clinical symptoms.

A blood examination helped to diagnose a diabetes, when the urinary tests failed to disclose any sign of it.

A case of rheumatism examined culturally for organisms showed excess of uric acid, and colchicine effected a cure.

A man having a specimen of his blood is able to describe the respiration of a patient whom he has never seen.

By a response of the skin to an injection, there can be told as to whether an infant has, or ever is likely to have, diphtheria.

The foregoing might be amplified almost endlessly. In fact, the art of diagnosis has made such enormous progress of late, that we may look for the time, not so remote, when medical men, not satisfied with finding out what ails a person, will try to discover how they can cure their patient. And in this we doctors shall have the hearty concurrence of the public, for every man is far more interested in his recovery than he is in the correct diagnosis of his complaint.

In truth, it speaks well for the older physicians that, with all their crude primitive methods of diagnosis, the proportion of their cures has been as great as it was. The fact of the matter is, the imperfections of the older methods of diagnosis depended primarily upon ignorance of physiology. Were we as thoroughly versed as we should be in the functions of the living human body, if we knew as much about our own physiology as we do of our own anatomy, it would, by no means, be difficult to recognize deviations from the normal standard of operations or functions; and it is simply a question of

learning and experience to detect the cause of such deviations.

The profession seems to have taken these methods with that completeness that characterizes us as a body. If a method seems to disappoint our exaggerated conceptions of its possibilities, we drop it like the proverbial hot poker. Sooner or later, however, the profession must return to the rational method of treating disease, that of applying our knowledge of physiology, recognizing its derangements and the cause of such derangements.

We shall never do without the modern methods described by Slattery, but we shall unite them to the older ones, and the result will be, a better race of doctors than existed in the olden times or than has been produced up to the present. As it is, I should accept the verdict of a really experienced physician of the older class before I should that of a youngster, newly introduced from the laboratory and as yet without the experience which is absolutely necessary to translate his findings into substantial truths. In the same way, I should prefer a thorough therapist who knows drugs, rather than the most skillful surgeon who ever sawed off a leg.

To talk of charity beginning at home, is only another way of letting people know that we are stingy.

SYSTEMIC INFECTIONS ORIGINATING FROM THE ORAL CAVITY

We are accustomed to speak complacently of the tremendous strides with which we advance along all lines of human endeavor. In electricity, in industrial chemistry, in the natural sciences generally, increasing knowledge has placed us in possession of advantages and benefits that our fathers had believed impossible, even if they could have imagined them in their wildest flights of fancy. Except for the older members of the profession, physicians hardly can realize what this same progress has meant to medicine. It is not yet a lifetime since the bacterial origin of many of the diseases was pointed out by Pasteur and proved by Koch and others, and since the treatment of these diseases, thus placed upon an etiological or causal basis, has become far more successful than it had ever been before.

We find it difficult today to picture to ourselves what difficulties were encountered by those pioneer investigators to whom we owe the science of bacteriology and its daughter science immunology; how new modes of

study and of research had to be devised; how the very form of question that had to be answered had to be discovered from step to step; how the therapeutic deductions had to be drawn tentatively—empirically, in fact—until with increasing information the benefits of all this patient and difficult research now accrues to our patients, in all branches of surgery and of medicine.

Even though the fact that certain micro-organisms could, and did, produce certain diseases was fully understood, the modes and other conditions of infection were not clearly appreciated for a long time, and it is only within recent years that one of the most important modes of infection has become understood in all its bearings and in its far-reaching consequences; namely: the localization of bacteria in the mouth-cavity, to which numerous and varied disease-processes have been traced. It is true that Miller had pointed out as long ago as 1889 that mouth infections may cause constitutional diseases, but this was believed to be rare, and, moreover, septic foci in the mouth and tonsils as well as in other cavities immediately accessible from outside were usually overlooked, while secondary diseases were accepted as primary ones, when, in fact, they followed upon the primary focal infections in their localizations.

The principal mode of infection, for virtually all systemic infectious diseases, was held to be by inhalation or by ingestion, and, very naturally, also, the direct infection through wounds and abraded surfaces was understood; it was not realized, though, to how great an extent infection-foci in the oral cavity might be responsible for disease in distant organs. However, increasing knowledge and improved methods of diagnosis have proved the frequency of small chronic septic foci in the mouth and tonsils. The newness of the subject resides, as is pointed out by Dr. Judson Daland (*N. Y. Med. Jour.*, 1916, p. 1159) in the fact that small chronic septic foci are a common cause of more or less serious—acute, chronic or recurring—systemic diseases.

It was realized only a few years ago that one of the commonest constitutional diseases secondary to focal infection is rheumatic fever, or polyarticular rheumatism—better named septic polyarthritis—and this focus is most frequently situated in the mouth or the tonsils. The conception that an abscess around an ingrowing toe-nail may produce endocarditis; or that an abscess situated anywhere may cause paroxysms of chills,

fever, and sweat; or that a gonorrheal prostatitis may give rise to arthritis, has long been recognized; but that a small abscess around the root of a tooth or in and around a tonsil can cause acute recurring or chronic disease of the joints, bones, periarticular structures, muscles, heart, vessels or kidneys, and give rise to ulceration of the stomach, duodenum, gall-bladder, appendix, thyroid gland, pancreas, ovary or meninges, is knowledge of more recent date.

It is, therefore, obvious that the prompt diagnosis and removal of a septic focus, wherever situated, is of the greatest importance, and this is particularly true of the foci of pyorrhea alveolaris, which have been amply shown to be either the direct or indirect source of many affections involving distant organs, the etiology of which many times was very obscure.

The connection of certain cases of polyarthritis with bacterial infection localized in the tonsils was followed by a revival of the former "slaughter of the tonsil," and not without justice. The relation of pyorrheal lesions to similar and to many other systemic diseases was recognized recently. The therapeutic procedures based upon this etiological conception have already passed through numerous and varied vicissitudes, from Wright's vaccine-treatment and from destructive surgery, through the list, to the present specific treatment by means of emetine, which latter has been found to be the most effective.

Some months ago, the extreme position of many English physicians, of condemning to ruthless sacrifice all dentures of patients in whom pyorrhea had been diagnosed was criticized in the London *Lancet*. American dentists have long ago learned to treat this obstinate condition with painstaking care, and have saved countless teeth that would have been lost had not rigorous cleanliness been insisted upon by them. It is, however, only since the antientamebic action of emetine has been fully recognized that a truly etiological or causal treatment of this widely prevalent disease has become possible and that we are in a position to prevent the many secondary affections that may be traced to it.

In dealing with Riggs' disease, it must not be forgotten that all open lesions in the buccal cavity soon become subject to secondary infections and that the ulcers and abscess-cavities usually are harboring various pathogenic germs, more particularly staphylococci and streptococci. It is these coexisting infections which, more particularly, may find

secondary localizations in joints and other places and thereby give rise to protracted and obstinate diseases.

The most important prophylactic factor against pyorrhea is scrupulous cleanliness of the teeth and gums, a periodical examination by a careful dentist, the routine use of ipecac powder for cleansing purposes, and administration of emetine whenever indicated, in order to destroy all foci in which the *entamoeba alveolaris* has found entrance.

One can begin so many things with a new person—even begin to be a better man.—George Eliot.

RED-CROSS APPEAL TO THE AMERICAN PEOPLE

The following appeal has been sent out by former President William H. Taft in behalf of the relief-work necessitated by the Mexican situation:

With the calling of many thousand men into military service, new and heavy responsibilities fall upon the Red Cross, in its relation to the army and navy on the one hand and to the people of the United States on the other. At present, these responsibilities are: first, to provide assistance to the medical service of the armed forces of the government, by the organization of base hospitals, ambulance columns, and other units for the care of our sick and wounded; second, to purchase, collect, forward, and distribute supplies for our soldiers in field, camp, and hospital; third, to help soldiers' families left destitute and not provided for by other agencies.

For the necessary means to discharge this patriotic service, the Red Cross, in accordance with its custom, turns to the public, whose sympathy and generosity it has learned implicitly to trust. Upon the response to this appeal must depend the adequacy with which the Red Cross will be enabled to help our sick and wounded soldiers, to soften the harshness of field-service, and to meet urgent needs among dependents at home.

In anticipation of such a grave emergency as this, the Red Cross has been building up an organization competent to meet the obligations of its national charter and to make effective the generosity of a patriotic people.

Contributions may be sent to the treasurer of a local chapter, or checks may be made payable to the American Red Cross and sent to national headquarters in Washington.

WM. H. TAFT,
*Chairman, Central Committee,
American Red Cross.*

We are informed that the Red Cross will collect, forward and distribute suitable articles for the soldiers in the camps. These supplies, however, can not be accepted for delivery to any specified persons, but, if at all, only for designated companies or regiments. Packages intended for individuals should be sent through the parcels post or express services. Supplies accepted for ship-

ment by the Red Cross should fall within the following approved list: Reading-matter, games, comfort-bags, pajamas, cotton socks (medium weight, large sizes), towels, pipes, smoking-tobacco, cigarettes, chewing-gum, chocolate in tin boxes, hard candies, George Washington coffee, evaporated cream, canned fruits and other delicacies in tins, and electric fans for hospitals. Perishable or bulky articles and articles of food and drink that are harmful will not be accepted for transmission.

In addition to this service, the Red Cross is making arrangements to establish base-hospital units, which will be turned over to the War Office, if war should be declared, and will also participate in organizing relief-work for the families of soldiers. Particulars concerning the various activities of the Red Cross can always be obtained from officers of the local chapters and through the newspapers; however, our present object is, to direct attention to this meritorious and important work.

A REMARKABLE NONTOXIC ANTISEPTIC

Undoubtedly every reader of *CLINICAL MEDICINE* will recall the articles that appeared in these pages some months ago describing the results of the investigations conducted by Dakin and Carrel in the army hospitals in France with various antiseptic substances, and which, it appears, culminated in the discovery that in the solution resulting from combining chlorinated lime and sodium carbonate (Labarraque's solution) with boric acid they had found one of the most effective as well as innocuous local antiseptics available. These investigations were carried on in the laboratories at Compiègne, supported by the Rockefeller Institute for Medical Research, where particular attention has been devoted to the study of antiseptics.

In one of the first reports made by Doctor Dakin, printed in *The British Medical Journal*, August 28, 1915, he suggested the possibility of utilizing certain synthetic substances the action of which is similar to that of the hypochlorites, but which are more powerfully antiseptic. He particularly mentioned paratoluene-sodium-sulphochloramide, which, as he pointed out at that time, has the very distinct advantage over the hypochlorites of being stable, both in solid form and in solution, and capable of being produced at relatively low cost.

In a later communication upon this subject, Dakin, working in collaboration with

Cohen and Kenyon (*British Med. Jour.*, Jan. 29, 1916), reports their experiences with this substance, which, it now seems, presents advantages over other antiseptics of such startling character as to make it highly probable that para-toluene-sodium-sulphochloramide will eventually replace, at least very largely, many antiseptics at present in common use.

This "hyphenated" substance has already been naturalized in Great Britain under two abbreviated names, namely, "chloramine T" and "tolamine." Under these names it is being marketed by large British pharmaceutical houses. Doctor Dakin, in his writings, uses the term chloramine; but, unfortunately, this name is extremely unsatisfactory, since it already has been adopted by an American manufacturer for another, quite different, product. In this connection we may state that an American firm—The Abbott Laboratories—has recently begun manufacturing this synthetic substance and is putting it on the market under the name of chlorazene.

Whatever its name, however, chlorazene or chloramine—as you may prefer—this new preparation is certainly a remarkable antiseptic. It combines powerful germicidal action with virtual nontoxicity. Also, Dakin declares that it "has no corrosive action, even in concentrated solution"; also that "it neither precipitates nor coagulates proteins, such as blood-serum—a property of greatest practical importance in the treatment of infected wounds." Moreover, we are informed that "guinea-pigs and rabbits tolerate as much as 1 Gram per kilo-weight, administered subcutaneously, without producing any symptoms other than the moderate local reaction resulting from the injection of a strong solution."

The germicidal action of this substance is "intense," once more to quote Doctor Dakin, who declares that the bactericidal action of one molecule of this chloramine is about four times as great as that of a molecule of sodium hypochlorite; while, "in addition, it is much less irritating than the latter substance and may be used safely at a concentration five to ten times as great."

Tests made with this new antiseptic upon several of the common organisms have demonstrated that chloramine is 2000 times as germicidal as phenol in aqueous solution, and 30 times as germicidal in blood-serum. Streptococci, it has been found, are killed in an aqueous solution of 1:1,000,000, while in blood-serum it destroys them in a dilution of 1:2500.

Clinical experience, of which there is now an abundance, thanks to the work of Doctor Dakin and his medical associates in the English military and naval service, has apparently demonstrated that this substance is effective under the severest tests.

Following, we reprint a brief outline of some of the experiences with this preparation, as published in *The British Medical Journal* for January 29, 1916.

"First of all, a series of fresh but badly infected shell wounds containing dirt, clothing, and shell fragments was studied. The wounds were exposed, cleaned mechanically in the usual fashion, and lightly packed with gauze, leaving a narrow rubber tube or tubes passing to the bottom or recesses of the wounds. By means of these tubes, 10 to 15 Cc. of a 3- to 4-percent solution of chloramine was squirted at frequent intervals into the wounds by means of a glass syringe, so as to moisten the whole surface of the cavity. The results were clinically similar to those observed, in the early treatment of infected wounds, with sodium hypochlorite, with the exception that sloughs are dissolved somewhat more rapidly by the hypochlorite than by the chloramine. The majority of these wounds, though undoubtedly infected at the start, could be rendered aseptic after three to five days when treatment was commenced early. The wounds so treated were severe cases, including a number of fractures of the femur and humerus.

"But the properties of chloramine seemed to indicate that it might find a more valuable application in cases where the more generally used antiseptics were either too irritating or too feeble. Accordingly, it was used in a large number of cases of jaw and mouth injuries, which are so apt to become extremely foul. Chloramine was used in 1- to 2-percent solution as a mouth wash, and a 2-percent solution was also squirted into the external wound cavities through short rubber tubes lightly surrounded by gauze packing. The results were very encouraging. Some of these cases have been described by Surgeon Fisher, R. N., of H. M. H. S. Rewa, in a recent issue of this journal. As an antiseptic mouth-wash, 1- to 2-percent chloramine has been found to be of value in a variety of septic mouth cases.

"In addition, chloramine, at 0.5 percent, has been used for the irrigation of bladder and uterus in septic cases, and the results are stated to be encouraging. A few cases of chronic urethral infections, which had been unsuccessfully treated with silver prepara-

tions, did well with injections of 1 to 2 ounces of chloramine [solution] four times daily, beginning at 0.5 percent strength and then increasing later to 1.5 to 2 percent.

"A practical point which may prove to be of value is the fact that gauze may be readily impregnated with large quantities of chloramine. It is possible, for example, to get as much as 10 Grams of chloramine into a four-fold roll of gauze of 1 yard by 4 inches. The use of this impregnated gauze for packing infected wounds is being investigated at the present time by Sir Berkeley Moynihan. There are very few substances of high antiseptic value which can be successfully used for impregnating gauze. Chloramine-gauze obviously should not be moistened before use, or the antiseptic will dissolve out. It can be used dry for lightly packing, and subsequently moistened, if necessary, when in position."

This new antiseptic is attracting more attention in England than any remedy introduced since the beginning of the war. A number of articles have appeared in *The British Medical Journal*, *The Lancet*, and other publications, and these journals have discussed its merits and its possibilities editorially. While the Britisher is notoriously conservative, there is plainly a very general feeling that the ideal antiseptic has been found, although, of course, this belief is not unanimous. For instance, Emery questions the extreme value claimed for the chlorine-carrying antiseptics by its warmest advocates.

During the last few years, many surgeons in this country and elsewhere have expressed the opinion that the day of antiseptics had gone by and that the present need was for asepsis. They had been led to this opinion, because every antiseptic of acknowledged germicidal power had heretofore been found to be irritating, caustic, and prone to destroy the sensitive tissues so essential for rapid wound repair.

The great war has taught the surgeons who are battling with disease on the blood-soaked and bacteria-infected fields of France the fact that antiseptics still are absolutely essential, and likewise has brought home to them the importance of finding some substance capable of destroying bacteria in infected wounds without impairing the vitality of the tissues.

Chlorazene promises to be the remedy for which these surgeons—as well as the surgeons all over the world—have been looking; and it is a source of pride and satisfaction to us that a great American institution, The Rocke-

feller Institute, through its representatives at the battle front, was instrumental in developing this product. We also have a feeling of pride in the fact that "an American pharmaceutical manufacturing house has been able to produce this substance so promptly, and to offer it to the medical profession of America for further and more exhaustive tests. But its values are still "in the lap of the gods." Much clinical work still remains to be done by American physicians to determine its limitations and establish its exact utilities.

If we will do for our children one half as much as we wish our parents had done for us, the rising generation will have abundant reason for gratitude.

THE INFLUENCE OF JOY

Odd, how we are still influenced by the early Puritan settlers of our country. Driven to seek new homes, because in their native land they could not follow freely the grim religious tenets which to them were truth, their views of life were not rendered more joyful by the hardships, dangers, and tribulations that were their fate in the new world. The stern, unyielding New England character, with all its sterling qualities, but too often blighted by a refusal to see the beauties of life, has come down to us, and insists upon deferring to the *seriousness* of life. And, yet, deep down in our hearts there are different points of view. Many of us can never give up being "kids"; the spontaneous enjoyment and the joy of living peculiar to childhood is yielded under protest; and, somehow, we cannot see why we should become curmudgeons, merely because we have grown up and have to find the "spondulics" to pay the landlord and the grocer and butcher and baker and to provide clothes for the missis and the kiddies, not to mention our own tobacco and cigars.

Combined with the hurry and stress of life, a gloomy, misanthropic philosophy is not conducive to happiness—or to health, for that matter—and we rebel against existing conditions, without knowing just how to remedy them. And, why, indeed, *should* we be miserable? Life is not. Nature is not. All flowers, all plants, everything in nature turns to the light, to the sun; everything is glad, as glad as can be, and the worst storm can blight the gladness only for a time; for, the joy of life breaks forth again exuberantly as soon as the storm has passed.

A rebellion against the miserable gospel of unhappiness was attempted, more or less blindly, by the so-called New-Thought move-

ment. It was supported by such publications as "The Physiology of Faith and Fear on the Mind in Health and Disease," "Worry the Disease of the Age," "Why Worry," and others of that kind. Even in far older books is the superiority of joy and happiness over killjoy influences emphasized. "Mirth," quotes Robert Burton, in his famous "Anatomy of Melancholy," "purgeth the blood, confirms health, causeth a fresh, pleasing, and fine colour, prorogues life, whets the wit, makes the body young, lively, and fit for any manner of employment."

Of late, the influence of mental conditions over the physical and physiological processes has found a deep and enthusiastic student in the Russian physiologist Professor Pavlov—who died recently, all too soon. Pavlov found many followers, thanks to whom our philosophy of life may soon be lifted to its proper plane, that of the reasonable and wholesome attitude of cheerfulness and of contentment.

The study of the emotions has been undertaken, in our own country, among others, by Professor G. Van Ness Dearborn, whose interesting book entitled "The Influence of Joy" is announced in this number of CLINICAL MEDICINE.

Between an empty pocket and an empty head, the majority of mankind would make choice of the latter.

THE MELTING-POT AND OTHER POLITICAL REFLECTIONS

In Chicago, the work goes bravely on, of working over into good Americans the raw material drawn from effete old Europe. One may judge, perhaps, of this work by the names enumerated below; this list comprising one week's prosecutions instituted by the Board of Health of Chicago for violations of the food-law. This list of names challenges attention; viz.: Jurowski, Montag, Togryske, Piller, Abel, Trebolos, Erodes, Bolin, Tonashewski, Pitassi, Kiss, Madajczyk, Norwizki, Katlan, Kofzminsky, Silverman, Anaston, Abrahamson, Roysik, Bekata, Ostringer, Chologenko, Wirtz, Dobrzanski, Catca, Wertheimer. Beside the foregoing, we find in that lot of law-violators the names of William Powers, Patrick J. Prendergast, Louis Simon. These latter three ought to be ashamed of themselves for not having set a better example to the newcomers to America that were arraigned with them. How can we expect these recent immigrants to observe the laws of health, when those who ought to know better

are arraigned with them for breaking the same laws?

This presentation will give some indications of the cosmopolitan population of Chicago. But, make no mistake: While these men and women have been gathered from all corners of Europe, their children are all good Americans. It is interesting to the ethnologist to observe how they all fuse into one general stock. There is no distinguishing characteristic of any race that goes to form an element of our population but what is quickly acquired and manifested by the children of the other races as well. Incidentally, it may be remarked that, with all the newspaper abuse so liberally showered upon him and upon everybody else who has dared to favor the present administration of the city, Health Officer Robertson is proving the most active and useful incumbent of that office it has had since the days of Frank Reilly. Every department and every one in the health-office has been energized and benefited by the work of this remarkable man. Nevertheless, while criticism has been made of his asserted methods and alleged abuse of political patronage, nothing has been advanced against his efficiency as health-commissioner. And that is what the citizens of Chicago are mainly interested in.

Some of the Chicago newspapers at times expressed surprise that Carter Harrison should be four times elected mayor of Chicago, in spite of the abuse he received. Nevertheless, it is certainly significant that when he was last elected, after having been in the limelight for so many years, through so many political campaigns, the meanest thing his opponents could find to say against him was, that he had "moved to southern California to live"! This in itself does not seem to be such an unpardonable sin, but, it was the only thing the politicians opposing Harrison could find to stir up opposition over. It is very easy to criticize and to find fault generally, but, when one comes down to facts and can find nothing else to fuss over, a man in that position can well afford to take the abuse given him philosophically.

Just now a good deal is being said about the discharge of a number of teachers from the public schools. As a rule, people holding a job do not like to lose it. They generally get to believe that they have a personal ownership in the job and feel as aggrieved, if it be taken from them, as they would in having their pocket picked or their house robbed. However, it would be remarkable if any tree were not the better for judicious pruning, an

dead wood is especially prone to grow on the political evergreen. An upheaval such as this usually is necessary, in order to establish new ideas, new methods, and advances in general.

Perhaps if the shams of society did not hedge us round with barriers which seem impassable to our shame, and curb some of the most honest and generous feelings of our hearts, there might be better men and women in the world for the pulling down of a little conventionality. How often does some noble impulse die in the birth, because it is not the custom to show that we feel it, and Mrs. Grundy, with her satin petticoats covering her festered sores, would gather them more closely around her, when she heard of the solecism we had committed.—Florence Marryat.

THE LAST TRENCH SURRENDERED

Thanks to the discrimination of our law-givers, the innumerable swarms of folks who want to be doctors, without learning how, are granted nearly all the rights and privileges pertaining to our guild. Chiropractors, Osteopaths, Christian Scientists, and the rest of the gang, may do almost anything they like; but the legislators firmly refuse to them the privilege of employing drugs. In only one direction, is there an effort made to encroach on us in this respect, and that is the concerted movement of organized pharmacy to detach us from the privilege of dispensing our drugs. If successful, this would be a deathblow to the practice of medicine, for it would place us completely at the mercy of dangerous competitors. The druggist himself prescribes and dispenses drugs.

This being the condition of affairs, we may ask, How do the prominent men and institutions in our profession seek to protect us in this last and most important privilege? The answer is easy: They don't.

Instead of holding tenaciously to our last remaining privilege, Johns Hopkins abolishes its chair of therapeutics. Coming out flatly in explanation, that, "as all cases come eventually to the surgeon, we might as well skip the intervening processes and let them go to the surgeon at once"! Then they proceed to meet the wishes of the druggist over half way, by mentioning that, "if anybody really cares to investigate therapeutics, he is referred to the department of pharmacy of the institution."

We welcome the movement. It indicates that the tide surging against therapeutics and internal medicine in general has reached its termination. From the extreme point of its swing, the pendulum must return.

For our part, we have always believed that it is better to cure a diseased organ than to

extirpate it. Also, that, if drugs influence the vital functions in any way, we should learn to apply that influence usefully. Moreover, we have believed that it is essential that the physician should have the privilege of dispensing his own drugs, as in that manner he can obtain a personal familiarity with them and learn to judge of quality in a way that he cannot possibly do if he simply writes prescriptions, which go to any pharmacy that happens to be favored by the patient.

It is true that the pharmacists have gone to great lengths to compel the physician to do this latter thing, and in some states laws have been proposed forbidding the physician specifying the pharmacy to which his prescription should go. The basis of this is, the assumption that all pharmacists are perfect in their art and that all drugs dispensed by them are of precisely the same quality. Nevertheless, there has not been, within the limits of our knowledge, a solitary investigation as to the quality of drugs in the pharmacies, made by any authority whatsoever either in the profession of pharmacy or outside of it, that has not revealed such wide variations in the strength of the drugs as to render the use of them by the physician anything but a matter of certainty. It is not necessary to adduce any quotations to prove this point. No reading physician has failed to meet published records of such examinations. Even in New York City, the metropolis of the world, variations in many of the most-used drugs, reaching as high as 45 percent, have been reported by the pharmaceutical inspectors themselves.

The fact is, that these regulations imposed by organized pharmacy are designed eventually to take the prescribing of drugs out of the hands of physicians entirely and leave this matter to the druggists.

Since the movement has apparently the sanction of many prominent men in medicine, it is well for us to inquire how far it is likely to go.

The profession is to be composed of two classes of physicians, but not more. One, the very highly cultured, scientific surgeons and research-workers; the other, the druggists developed into practitioners of medicine, corresponding to the licentiates of the Royal College of Apothecaries of London. These men will keep their pharmacies and also do the bulk of the family practice. The ideal is English and emanates from an English overlord, King George.

Between these two millstones, the American doctor, as he has existed heretofore, will be ground to powder. The others will be



DR. ELIE METCHNIKOFF

This distinguished Russian physician, for many years connected with the Pasteur Institute, Paris, has recently passed away. He is best known for his work with the Bulgarian bacillus. This picture is a reproduction of a painting by his daughter, Olga Metchnikoff.

crowded out entirely. It would be wise for physicians located in country districts, where it is absolutely necessary that they dispense their own drugs, to take refuge in the ranks of the pharmacists, in view of the eventualities.

Unfortunately, the warning comes too late. It is not to be doubted that the various state boards of pharmacy will quickly place obstacles in the way of anything like a general irruption of practicing physicians in the ranks of pharmacy. In the mean time, physicians

who desire their sons and other pupils to become real doctors had better be careful to send them to such colleges as teach therapeutics. Fortunately, there are still some of these in existence.

In the meantime, we warn our readers that forty-five legislatures will be in session next winter. In many of them, bills will be introduced to "regulate" the dispensing of medicine by physicians. Be prepared for the fight that is imminent *in your own state*.

Leading Articles

My Experience With Some Old-Fashioned Drugs

By SAMUEL E. EARP, M. S., M. D., Indianapolis, Indiana

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THREE young men who a year ago had been graduated, from different medical institutions, recently agreed in a conversation that each one of those colleges was almost perfect in its equipment of all laboratories, still, for some reason, when brought face to face with a patient, the stumbling block for each graduate seemed to be a deficiency in his knowledge of drugs and their application. I am under the impression that others have heard this same criticism. Perhaps the therapeutic field has become so vast that it cannot be covered in the course given in the average curriculum.

The therapeutic nihilist was increasing for a time and therapy in many medical journals was sparse and almost a farce. *The Therapeutic Gazette*, *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, and a few other publications kept forging to the front, but elsewhere there was a scarcity of drug therapy. This became noticeable and its influence discernible in the inefficient work of the recent graduate everywhere. This view was generally accepted, and it became necessary for the medical press to inaugurate a campaign of education. The *J. A. M. A.* gave space to a department of therapeutics, and the trend in this avenue is seen in the makeup of other medical journals.

In my bedside clinics at the hospitals, I do not neglect the pathology and laboratory diagnosis, but I emphasize the methods of palliation and cure. If it is necessary to review physical diagnosis and therapeutics, I do so by a drill early in the course. Furthermore, the best (as well as the worst) of us, unless warned, will collect a few therapeutic cobwebs in our brains. If we have a tendency to specialize in our work, there is some

danger of neglecting a study of the things that alleviate or cure.

Those who have read the reports of the "Wine of Cardui trial" in Chicago remember that two witnesses who are authors and of more than local fame got confused concerning Hoffmann's anodyne and quassia, and that, when the lawyer in substance asked, "You have used these remedies but do not know the source or that one is known by another name?" their answer was in the negative. I fear that the proprietary literature, so easy of access, so glowing in language, so positive in assertion now and then, has overshadowed some of the substantial remedial agents. The European war has brought us to a realization of this fact. Prices are high and some drugs are scarce, others can not be obtained; and, of necessity, the rank and file of us have found it opportune to refresh our memories concerning many of the agents which were popular twenty or more years ago.

The reliable agents in many instances may now be obtained in different forms, more active principles are being used. Some are given in smaller doses, but more frequently, until their effect is evident. This is the progressive side of medicine; but it is the old remedy at the base which has furnished the means by which cures can be accomplished. It is not a digression to say that some of these facts were outlined in the "Textbook of Alkaloidal Practice" by Waugh and Abbott which I reviewed in *The Central States Medical Monitor*, now *The Indianapolis Medical Journal*, in 1907. I shall call attention to some of the agents with which we must needs be familiar; and, yet, until "the unpleasantness across the water," some of them were almost abandoned. Perhaps I may only be

reviewing briefly the experience of many of the readers; this, indeed, I hope to be true. At any rate, I shall summarize from my own observation in private and hospital practice.

Aconite and Veratrum

After a "Rip Van Winkle experience" in the case of some practitioners, I am glad, indeed, that aconite is getting its full recognition. For some, aconite is almost a new remedy, while others have refreshed their memories, and still others have continued to recognize it as one of their potent agents in practice.

To those who know, aconite (and aconitine) has been almost a substitute for the lancet. In the acute infections characterized by a high, resisting pulse, skin hot and dry, and vascular excitement, it is unequalled. It cannot be supplanted by any other drug in the first few days of scarlatina, measles, tonsillitis, rheumatism, and in inflammation of the serous membranes. In continued fevers, it should not be used; hence, it is not indicated in typhoid fever, unless during the first few days when there is a safe heart—but it is not necessary. What better can be used in excessive heart action, as for instance in exophthalmic goitre, palpitation from some lesion of the nervous system? Only, there must be here no evidence of valvular disease or dilatation; although even under these circumstances a few give aconite, but with caution. In the diseases of infancy and childhood, it has no superior and no agent can successfully take its place. Furthermore, we are less likely to find a defective heart during childhood. I shall not endeavor to call attention to a score of other indications, being content to mention conditions wherein it is the best therapeutic agent.

Another point to consider is, that it is a positive agent and gives results, and it is not desirable or necessary that it be given indefinitely. It acts, you recognize it at once, and it can be given symptomatically. Its action should be watched. In the hands of the ignorant and careless, it is dangerous, but, given by an intelligent and cautious person, it is reliable and safe. I prefer the tincture in 1-2- to 1-minim doses every twenty to thirty minutes, but discontinue if not needed or there be some contraindication.

In using aconite, there are those who prefer the alkaloid aconitine, and these record as good results as are obtained from digitalin and veratrine. I shall not consider *veratrum viride*, except to say that I recognize it as a

remedy that should be prescribed more frequently. Just one point is to consider wherein disappointment follows its use. If the patient is not quiet, the best results cannot be obtained. When the patient under the influence of veratrum has a satisfactory circulation, if he assume an upright position or walk, then the change in the pulse is at once perceptible. When you give veratrum or any of its preparations, keep the patient quiet, get good results, and do not blame a drug for inefficiency when the fault is with patient or physician. This injunction does not apply to this drug only.

Calcium

A number of derivatives from this old remedial agent have proved useful. For many years, I have used the chloride or the lactate in hemorrhagic conditions of typhoid fever and in pulmonary hemorrhage. Beasley has published two reports in *The Indianapolis Medical Journal*, showing his success in the treatment of tuberculosis by intravenous injections of calcium chloride. In *The Boston Journal of Cutaneous Diseases* for October, 1914, White called attention to the use of calcium lactate in the treatment of certain dermatoses. The rationale of its use is based on its property to increase the coagulatory power of the blood and to render the morbidly permeable vessel-walls less permeable. Conditions of an exudative character are suggested. It is appropriate in urticaria, purpura, erythema multiforme, and hyperidrosis. White's formula is:

Tincture of capsicum.....	m. 8
Calcium lactate.....	grs. 160
Chloroform water.....	ozs. 16

Dose: Two tablespoonfuls in water before meals.

During the preparation of an article relative to the use of *sulphide of calcium*, I wrote to six authors for a statement of their experience in its use, but none of them had had any personal experience. This journal kindly published an abstract of the article. I am still convinced that it is a reliable remedy. The files of this journal, so far as my observation goes, will prove its efficacy more than any other publication.

Spirit of Nitrous Ether

Perhaps we forget that there is ample argument for the use of this remedy in the febrile diseases of infancy and childhood. It is a sedative upon the circulation, a diaphoretic, and as a diuretic it maintains the action of the kidneys. We do not fear its toxic effect, and, yet, it is potent. If some of

the heavy drugs are given in small doses, there is no effect, if in large ones, there is danger.

Nitrous ether can be combined with aconite and veratrum viride, if desired. Every little child having an elevated temperature needs plenty of water and, if this agent is put into a glassful of water, frequent sips may be taken, and then, if this plan is followed, very often the patient will soon quiet from its delirium, the skin becomes moist and a calm sleep follows.

Perhaps we may replace the word ephemeral by another, but we all know the little brash of fever often experienced during childhood, though such a condition may have many causes. This can be easily conquered, and quickly, by the use of a tablet of calomel and soda, followed by the agent to which I have called attention. Combinations of spirit of nitrous ether, liquor of ammonium acetate, elixir of hops, and lactucarium, two or more of them, may be made. The late Dr. John V. Shoemaker, the widely known therapist, had a favorite formula, which he used in acute bronchitis, acute rheumatism, and fevers, which was constituted as follows:

Sp. Aetheris nitrosi	ozs. 2
Aquæ camphoræ	ozs. 2
Liq. ammonii acetatis	ozs. 2
Antimonii et potassii tartratis	gr. 1
Morphinæ sulphatis	gr. 1-2

Dose: A tablespoonful in water every hour or two, until relieved.

Asafetida

Since I am excluding the agents with which we are especially familiar, those of recent date and those most commonly used, looking for virtue in the older remedies, I necessarily must not be forgetful of asafetida. This is another remedy most efficient in the ailments of infancy. It is serviceable in colic, nervousness, indigestion, flatulence, and even when a carminative or expectorant is needed. Let us say, when a safe though mild antispasmodic is desired. Moreover, in nervous women (especially young girls), and in old men, it can be advantageously given. For an ex-

ample; a catholic priest who recently returned exhausted from mission work had insomnia. During other attacks, he had been given codeine. I gave him a pill of asafetida, containing 5 grains, each hour until he had taken three. I must confess that, while hopeful, I had some doubt when asafetida had to follow in the wake of codeine, but it relieved his insomnia. This formula may be used:

Mist. asafetidæ	oz. 1
Elix. valerianæ ammoniatæ	oz. 1
Aquæ menthæ piperitæ	oz. 1
Elixir simplicis	oz. 1

Dose: One to two tablespoonfuls in water every two to six hours.

Aloes and Colchicum

Aloes affects the large intestine, increasing the peristalsis, without causing excess of secretion. The action is slow and the stool is softened. On account of its tardy action, I order a saline three hours after the aloes has been taken.

We agree that many conditions are relieved by thorough catharsis, that is, keeping the bowels clean. A number of years ago, a man with whom I was acquainted was given a prescription containing aloes, 1 grain, blue mass, 1 grain, Venetian soap, 2 grains, to constitute 1 pill. He called it M. I. S. T. He heralded it as a cure-all. From its sale alone, he accumulated \$200,000. It was advertised extensively.

At one time, no prescription for gout was written unless it contained *colchicum*. In certain arthritic conditions, I like to use the wine of colchicum and iodide of sodium, and sometimes the salicylate of sodium added to the combination.

The length of this contribution is sufficient, otherwise we might review colocynth, conium, elaterium, guaiacum, ipecac, lactucarium, valerian, senna, and others. Some perhaps are objectionable under certain conditions, some are very mild and of little service, while others are powerful in action and deserve continued recognition.



Nonoperative Gynecology

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

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EDITORIAL NOTE.—This is the second in the series of articles upon nonoperative gynecology which Professor Rittenhouse is contributing to this journal. This is a topic in which every general practitioner is interested; therefore we believe that every succeeding instalment of this series will be eagerly welcomed by every reader of this journal. Professor Rittenhouse will be glad to answer any questions, and we hope that the series may bring out many comments.

[Continued from July issue, page 576.]

URETHRAL CARUNCLE

WHILE we hear comparatively little about urethral caruncle, yet, it is a condition capable of causing a great deal of suffering. Such a growth often goes unrecognized and the symptoms it produces are referred to other causes. It occurs with considerable frequency especially after the menopause, if I may judge from my own observation; for, I have never seen this condition in a woman under twenty years of age, while more than half of my subjects have been over fifty.

Urethral caruncle is a little newgrowth in the meatus of the female urethra; occasionally it is located higher up in the urethra, but I have never found one further than half an inch from the meatus. Usually it is plainly visible on inspection, only rarely a urethral speculum being needed to expose it.

The shape of these excrescences varies greatly. A few have a distinct pedicle like a polypus, but most commonly the growth is sessile, like a wart; occasionally it is of a diffuse form, appearing as a thickening of the urethral mucosa around half of its circumference or more. In size it varies from that of a large marrowfat pea down to that of an insignificant pimple.

The two most characteristic features of this growth are its color—which is a very dark-red, contrasting strongly with the pink mucosa—and its exquisite sensitiveness. One patient described the sensation caused by merely touching it with the finger as “nerveracking.” Another compared it to touching the nerve of a tooth with a dental drill. Because of this extreme sensitiveness, the effect of this little growth upon the patient’s nervous system usually is considerable, sometimes extreme. I saw one such victim who, because of it, seemed to be on the verge of insanity.

The etiology of these caruncles is not always clear. I believe the most common cause to be long-continued hyperacidity of the urine; this belief being founded upon a

number of cases in which there was a tendency to relapse after successful treatment, while upon changing the diet, so as to reduce the acidity of the urine, this tendency to relapse disappeared. So far as I can recall, my patients have all had very acid urine when they first presented themselves for treatment. I may say here that every doctor ought to have the means for measuring urinary acidity. The acidimeter sometimes described in the advertising pages of this journal is simple, inexpensive, and readily used.

The Symptoms and Diagnosis

The principal symptoms produced by caruncle are, dyspareunia, and pain which is referred to the urethra or bladder. The latter often causes the mistaken diagnosis of cystitis, but the bladder pain is more properly a neuralgia, sympathetic with the urethral irritation. Treatment for cystitis sometimes gives temporary relief, because washing out the bladder with hot solutions has a soothing effect on the neuralgia, and the use of alkalis by mouth diminishes the acidity of the urine. I am not convinced that caruncle ever produces true cystitis; in the few cases in which I have found the two associated, the women had been catheterized and may have been infected by the catheter.

The diagnosis of this condition is not difficult, and a mistake can scarcely occur except as the result of careless examination or none at all. Quite a number of my patients reported having been treated by internal medication, without a local examination having ever been made; but the acme of diagnostic obtuseness seems to have been reached in two of them, in whom washing out of the bladder had been attempted, but abandoned on account of the excruciating pain caused by attempting to introduce the catheter—and all this without discovering the true condition!

It is not pleasant to criticize one’s confrères, but there is no disguising the fact that some members of the profession stand in need of the injunction which was repeatedly hurled at my class at college by one of the most respected of my old professors: “Gentlemen!”

he would say, "if you forget everything else I have taught you, remember this: Examine! Examine! ! Examine! ! !," uttered crescendo, and each repetition emphasized with his fist.

The diagnosis can readily be made by inspection. The exquisitely sensitive, dark-red growth can not easily be mistaken. Only when the caruncle is higher up in the canal is a urethral speculum needed.

The Treatment of Urethral Caruncle

The treatment which gives good results in the majority of instances is, cauterization. A probe is wound with cotton and dipped into a 4-percent solution of cocaine. If this be roughly pushed into the urethra the pain will be very severe; but this is quite avoidable. First apply the cocaine to the visible portion of the growth; in a few minutes that will be sufficiently deadened to permit the probe being inserted a little farther, and so gradually the first half inch of the urethra may be thoroughly cocaineized. A pointed pencil of nitrate of silver is now inserted and revolved for a few seconds until the whitening of the diseased tissues shows that the caustic is taking hold. It is best not to make the cauterization too severe. The object is not, to destroy a large amount of tissue (which might result in cicatricial contraction and stricture), but rather to cause absorption of the diseased tissue in the ten days or two weeks following the application. Care should also be taken not to introduce the caustic too far into the urethra; the pain will be intense if it touches the uncocainized mucous membrane.

The cauterized area should be allowed to heal thoroughly before another application is made. This healing will require ten days or two weeks, according to the severity of the cauterization. During this interval, a certain amount of absorption of the pathologic tissue will take place, and upon this absorption will depend the number of treatments required for a cure. Usually from three to five applications will suffice, if the proper interval is allowed between them; while, if they are too close together to permit perfect healing, an amount of inflammation will result that delays the cure. These cauterizations should be continued until a catheter can be passed without giving pain.

One naturally would expect that for a few days following a cauterization urination would be very painful; but the opposite usually is true, the patient experiencing a degree of relief to which she has long been a stranger.

If the growth has a pedicle, it should be snipped off, under cocaine, before the caustic

is applied. If it is sessile, excision usually causes more pain than will cauterization. Some doctors prefer excision, because thus the treatment is concluded in less time. For this reason, patients from a distance sometimes are subjected to it, because they do not wish to remain in the city for five or six weeks. But, whenever it is possible, I prefer cauterization, as in my experience it has caused less pain and no strictures, while several of the latter have come under my notice where excision had been performed.

A Few Illustrations From Practice

Perhaps I can best illustrate the variations that are met with in these cases by describing a few clinically.

Mrs. C., aged about 24, married about two years, never pregnant, suffered intensely from dyspareunia. She had become almost a nervous wreck, was melancholy, indifferent, and latterly had dysmenorrhea. Her husband told me that when he married her she was of a happy, cheerful disposition. (This was the patient referred to in my last month's article.) Like the woman told of in the Scriptures, she had suffered many things from many physicians, and was nothing bettered. In her home city, she had been subjected to a laparotomy and was told that her ovaries had been removed; but, as she afterward became pregnant, the removal, if done at all, certainly was not a complete one.

Upon taking charge of her, I quickly located a caruncle in the urethra, about a quarter of an inch up. This fact probably accounts for its not having been discovered by her other doctors, although it could be exposed even without using a speculum. It was of the size of a small pea, slightly pediculate, and had a considerable base of diseased tissue. After thorough cocaineization, I snipped off the pedicle and cauterized the base with a pencil of silver nitrate. Ten days later, she reported great improvement. I cauterized mildly at intervals of a week or ten days, and in about six weeks, as nearly as I can recall, she was entirely well.

Miss L., aged 26, virgin, had a sessile caruncle near the meatus. The principal symptoms were painful micturition and neuralgia of the bladder. She lived in a distant city. Her physician had correctly diagnosed the condition and treated it by cauterization, but without success. Whether the failure was unavoidable or due to faulty technic I have no means of knowing. I advised a more thorough trial of cauterization, and excision as a last resort. The doctor re-

sorted to excision at once. The lesion was cured, but stricture resulted.

Mrs. L., aged 83, mother of four children, consulted me for cystitis. Her urine contained pus and mucus, and she had been repeatedly catheterized two years before. Micturition was very painful. Inspection revealed a sessile caruncle just within the meatus, of the size of a small pea. As I saw her at her home and the bladder symptoms were urgent, I tried to wash out the bladder with boric-acid solution, but the attempt to introduce the catheter was so painful that I was compelled to desist. I then proceeded to cocaineize the urethra and cauterized the caruncle. Immediately thereafter I was able to wash out the bladder, to the great relief of the woman. I repeated this irrigation daily for some time, applying cocaine to the urethra for the first few days. The caruncle was cured long before the cystitis was.

Mrs. E., aged 49, married, but childless. She experienced pain on sitting down, and was troubled by bladder neuralgia and painful micturition. Her doctor had diagnosed cancer of the bladder and told her husband there was no help for her. The error in diagnosis resulted evidently from two unusual features of the newgrowth, namely, that it bled a little at times and its shape was somewhat uncommon. It was neither pediculate nor wartshaped, but involved the entire circumference of the urethra. The mucous membrane for the first half inch was much thickened, everted, and presented the characteristic color and sensitiveness. The woman's revulsion of feeling may be imagined when I assured her that she had no cancer, was not doomed to die, and would be well in a few weeks. Five cauterizations spread

over about eight weeks produced a thorough cure.

Mrs. W., aged 60, mother of five children, was troubled by neuralgia of the bladder and retention of urine, which exhibited ammoniacal decomposition. A prompt cure resulted from treatment by cauterization and the washing out of the bladder with boric-acid solution. For almost a year she showed a tendency to a recurrence of the trouble, owing to the great acidity of her urine; however, the administration of potassium acetate and an occasional mild use of the caustic finally ended these relapses.

Where hyperacidity of urine is persistent, the continual taking of the potassium salts is not advisable, and then it is better to reach the condition through the diet, by cutting down the meat (especially beef) and eating plenty of vegetables, including spinach, stringbeans, asparagus, lettuce, cabbage, turnips, and the like. Whole-wheat bread should be substituted for white bread.

Mrs. M., widow, aged 32, mother of one child, had severe neuralgia of the bladder, complicated by hysteria, and her condition was diagnosed as cystitis. She was kept in bed for three weeks and dosed with urotropin, but without being benefited. The next diagnosis was ovaritis and ovariectomy was advised. When she came to me, I found a small sessile caruncle near the meatus, which promptly disappeared, and she got well, after three cauterizations.

In closing this article, I want to emphasize two points, namely, the importance of careful examination and the superiority of mild over severe cauterization. Instead of violently destroying the pathologic tissue, I prefer to stimulate nature to absorb it.

THE spice of life is battle; the friendliest relations are still a kind of contest; and if we would not forego all that is valuable in our lot, we must continually face some other person, eye to eye, and wrestle a fall.—Stevenson.

What the General Practitioner Can Do in the Treatment of Chronic Diseases

By GEORGE F. BUTLER, M. D., Kramer, Indiana

Medical Director of The Mudlavia Sanitarium

[Continued from July issue, page 589]

THE majority of doctors find the treatment of chronic diseases a very serious stumbling-block in the way to reputation and financial prosperity. The reason is, that they follow routine ways or some fad, instead of going about their work systematically, seeking out and applying correct principles, formulating a definite plan and adhering to that persistently.

Three Cardinal Principles Involved

The three cardinal principles in the treatment of chronic diseases are: (1) rest, (2) fasting, and (3) appropriate drug-treatment. As a matter of course, these principles must be applied with judgment.

Rest, for instance, does not mean that a man shall drop his work, go home, pull off his boots, climb into bed, and remain flat on his back indefinitely. True, he may need rest in bed or in a hammock, with cool breezes playing about him. But, also, he may need rest from whisky, heavy dinners, mental excitement. Rest for the overworked stomach, the paralyzed bowels, for the nervous heart and strained nerves, the tired brain may be secured in a variety of ways. Lying down perfectly still and relaxed for short intervals is a very good way to secure rest for heart, brain, and nerves—will “pull one together” in an astonishing way, and, constantly practiced, it undoubtedly lengthens one’s term of life.

In chronic diseases, the nutritive processes are abnormal. Waste is not promptly and properly eliminated—it accumulates. The system does not reduce its anabolic products to their lowest terms, thus causing friction and making the work of elimination all the harder. It is a great mistake to add further to the difficulty by giving more and more food to patients in whom the process of nutrition stagnates. Food will not be transformed into nourishing red blood unless the system needs it and there is appetite for it. To eat food under such conditions, simply means to obstruct the circulation with an improperly digested, nonvital pabulum which increases the torpor and burden of the system, depressing the recuperative impulse.

Fasting rests the heart, making its work easier; it rests the stomach and bowels, enabling them to store secretory and peristaltic power; it lowers blood pressure, flushing the area of elimination; it increases the ingestion of water, and softens and relaxes the entire body, so that the work of cleaning can proceed with greater rapidity and with the least expenditure of vital force.

Fasting may be absolute for one day or for several days; it may be partial, by abstaining from one meal or two meals or by adhering to a very light diet. But, we should always avoid extremes and hobbies. Rather, we should make successful experience the sole judge of the value of our methods and be prepared to discard them for others if unfavorable symptoms develop at any particular time.

Thoughts of Some Authorities About Resting

In discussing the subject of rest, I can fully subscribe to what the late John Hilton has said:

“In my reflections on the subject of rest as a curative agent, my mind naturally reverted to that period of man’s existence when it was the sole curative means of which he could avail himself. I could but picture to myself the timorous awe which must have been engendered in his mind by the first accident which happened to him. Let us imagine our first parents suddenly thrust out of the Garden of Eden and doomed to toil for their daily bread, with hands unused to labor, inexperienced in the substitutes for unnecessary exertion and in the avoidance of local injury, and exposed to all the accidents of a precarious existence. Let us try to realize the awestricken dismay which must have oppressed man’s mind on the infliction of his first wound, his first experience of pain—the breach of surface disclosing to his sight his blood flowing unceasingly or leaping, at sustained intervals, from its opened chambers, his sense of fainting and his ultimately sinking on the earth under the foretaste of death; this, too, with the recent denunciation “Thou shalt surely die” still ringing in his ears. Can words depict the hopeless anguish which he must have endured? But what follows?

See him awakening to life again, the stream of blood stayed, the chasm plugged, his strength revived, and day by day that wound—which he regarded as the badge of death, the vengeance of the Creator's wrath—narrowing and healing, till it could hardly be seen.

"I have made these observations for the purpose of showing the original promptings of nature to man, for the alleviation of what must have necessarily befallen him in his altered condition. Pain was made the prime agent. Under injury, pain suggested the necessity of, and, indeed, compelled him to seek for, rest. Every deviation from this necessary state of rest brought with it, through pain, the admonition that he was straying from the condition essential to his restoration. He must have observed with astonishment the breaking asunder of the newly formed tissue or the steady development into normal structure, which occurred in exact accordance with the disturbance or rest to the parts, which the sense of pain had enabled him to regulate so accurately, and to employ so beneficially for his own personal relief and comfort."

Rest and Growth

Growth is the antitype of repair, prefiguring the physiological capabilities of existing structures to repair themselves. Without digression, I may say that so intimate is the association between rest and growth as to make them appear, upon a superficial contemplation, to stand to each other in the relation of cause and effect. Accurate observation of the animal and vegetable world certainly reveals their perpetual coexistence; and growth, as a rule, seems to proceed, *pari passu*, with physiological rest.

Another writer, Mr. Ward, says: "All plants require rest, and obtain it, in some countries, by the rigor of winter, in others, by the scorching heat of summer. Cultivators often fail in their attempts to grow certain plants from want of attention to this essential part. Thus most alpine plants, which enjoy an unbroken rest under the snow for several months, are very difficult of culture in our mild and varying winters. The winter of 1850-51 was ushered in by some heavy falls of snow, with which I filled my alpine case, giving the plants a perfect rest of three or four months, and with a most satisfactory result: the *Primula marginata*, *Linnaea borealis*, and other species flowering much finer than usual. Many of these beautiful plants would, I am convinced, succeed well if kept for five or six months in an ice-house.

"Plants, in hot countries, have their periods of rest in the dry season. In Egypt, the blue water-lily obtains rest in a curious way. This plant abounds in several of the canals at Alexandria, which, at certain seasons, become dry; and the beds of these canals, which quickly become burnt as hard as bricks by the action of the sun, are then used as carriage roads. When the water is again admitted, the plant resumes its growth with redoubled vigor."

Also, our great master on physiology, John Hunter, has not left this particular field unexplored, for we find, not only in his published works, but in others which remain in manuscript, that the subject of rest occupied no inconsiderable portion of his attention. "Most plants," he tells us, "close their leaves, others their flowers, at particular hours of the day or night; and with such regularity does this period of rest take place that more than one vegetable physiologist has proposed to construct from them a floral clock." As a matter of fact, the great Linnæus had such a floral time-piece in his garden, as have had other botanical gardens after him.

We all know how eagerly rest is sought for by the lower animals, especially in periods of suffering from injury or disease—how they endeavor to escape from the prying curiosity of man, in order that the injury may be the more speedily repaired.

The value of rest in fostering the production of that highly organized animal-tissue that forms so large a portion of our staple food, is well known to the stockkeeper and grazier. A homely illustration may be found in the fact that in infancy the child which sleeps much thrives best. *Mutatis mutandis*, the observation is equally true, that the wakeful, restless child seldom displays the same evidence of active nutrition. Doubtless all will admit that in infancy development is in its highest state of activity and that the healthy infant passes the greater portion of its life in a state of rest and sleep. Growth—the renewal of some parts, and the fresh development of others—seems thus to claim sleep and rest as its helpmeets.

Repair is but the repetition of growth: the same elements, the same kindred conditions are necessary to the same results. Rest is the necessary antecedent of the healthy accomplishment of both repair and growth. This surely is the natural suggestion of a means toward an end that never must be lost sight of by the physician or surgeon. For example, children who are ill and lose their rest waste very rapidly, more rapidly in pro-

portion than do older people; but as soon as the morbid condition subsides and rest asserts its power, the recovery or repair becomes extremely active, accompanied by an increased tendency to sleep; sleep supplying the great desideratum previously required.

The interruption of rest by local disease occurring to persons in the middle period of life does not cause the same degree of exhaustion and wasting as in the young. They bear the loss of sleep better, because their constitution has to sustain the stress of repair only—not of both, development and repair, as in the child. Their recovery is slower; their subsequent sleep is not so profound nor so prolonged, nor their rest so complete. The defective sleep and slow repair that manifest themselves in the old after injury of any kind are familiar to us all.

What I have here endeavored to inculcate is, that growth and repair bear an exact relation to due physiological rest, local and general.

Brain Activity Versus Rest

Let me employ a familiar example to illustrate the effect of rest on the brain, by referring to any overworked member of our own profession. Free from structural disease, but worn and appearing prematurely old from exhaustion by mental labor—not physical exertion—he takes his holiday. The doctor's rest from professional duties consists in riding, walking, shooting or fishing. It is physical exertion which he selects for his relaxation; but during the same period he carefully excludes all worry, all mental strain. Under these circumstances, I conceive, some portions of his brain are nearly at rest, while others are occupied with their appropriate function of regulating muscular exertion. This man is, in fact, calling into activity the latent or suspended functioning of the cerebral centers, leaving the higher, the intellectual part of the brain to work out its own recovery from overfatigue or exhaustion by rest; that is to say, by being relieved of its own peculiar function or activity. After a time the vacationer returns greatly invigorated, improved in general appearance, active, with mental vigor replenished, and equal to almost any amount of professional exertion that may present itself, without fear of fatigue to his brain.

Let me offer this additional observation regarding the beneficial influence of rest, that is worth remembering: Those persons who drop off to sleep quickly, anyhow and anywhere, and sleep soundly, undisturbed by

active dreaming, are, *ceteris paribus*, capable of sustaining a greater amount of mental and corporeal exertion than those who find it difficult "to get off to sleep," who sleep lightly, and, dreaming much, awake but little refreshed.

Bearing on this subject, I, like others of our profession, have had repeated occasion to observe the effect of overwork upon men who use their brains with an expenditure of energy inconceivable to the thoughtless—men of widespread mercantile affairs, men engaged in money-transactions on a large scale and involving much anxiety. The condition of such of my patients attested the applicability of these remarks by their mental and physical exhaustion, by their depression of spirits, and by their want of self-confidence. Yet, in the case of such men, their restoration to health has been made complete by mental leisure, by "going out of town," and by taking plenty of exercise in the open air, while abstaining from the real disturbing cause, their business.

Nature's Methods of Securing Physiologic Rest

Having thus very briefly and very imperfectly reviewed the subject of rest in relation to the body generally, let us inquire into some of the expedients which nature adopts to secure the same end in its individual organs.

All viscera (as in the case of the brain, to which I have already alluded) require the alternate condition of activity and rest in order to keep them vigorous and in health. If this condition is not fulfilled, structural changes and deterioration of function are sure to follow. Indeed, concerning the etiology of the diseases of individual organs, it may be asserted that a large proportion of them originates in circumstances which deprive any organ of that rest which by nature is required for the performance of its healthy functioning.

Take, for example, the heart. When overtasked by constant overstrain, as in disease of its valves or the large vessels, or by excessive athletic exercises, and thus deprived of its appropriate rest, this organ becomes liable to the various alterations in its structures that postmortem examinations daily reveal. The liver, unduly stimulated by excessive potations, by needless amounts of food, or by habitual irregularity in one's diet (its physiological harmony with the other organs of digestion being thus constantly disturbed), glides into disorganization, for the same reason. The kidney, too, if its functions be disturbed by the abuse of alcoholic drinks,

which entails an unnatural and continued stress either upon its malpighian or tubular portion, manifests the same tendency to structural decay as a consequence of its loss of needful rest.

Dr. Milner Fothergill ("Practitioner's Handbook," p. 388) has pointed out another fertile source of disturbed rest in the case of the kidney, and also how to mitigate it. "This knowledge [that urea is largely derived from the splitting up of albuminous material in the liver as well as from disintegrating tissues] has enabled us to relieve impaired kidneys by diminishing the amount of work they have to do. A large amount of the nitrogenized food we take is unnecessary and is not required for tissue building; a comparatively small amount only of nitrogenized matter daily is sufficient for that purpose. We take it because we like this form of food and because the stimulating properties of nitrogenized substances render them agreeable. The energy of the meat-fed man, as compared with the vegetable-eater, is distinct and marked, but gout and other troubles are its inseparable alloy. There is a Nemesis behind the force-manifesting animal food. The presence of large quantities of waste nitrogen in the blood maintains the kidneys in a state of high functional activity, and the hyperemia of active function in time leads to the production of connective tissue in excess. Such is the origin of many cases of chronic renal disease; such, indeed, is the natural history of interstitial nephritis, of the contracting, granular, cirrhotic or gouty kidney."

It is, I believe, an admitted physiological axiom, that each structure or organ, while actively employed, is in a state of vascular excitement or turgescence, and, therefore, enlarged during that time.

So, it is noticeable that each organ of the body that is liable to a rapid supervening of activity in its proper function is so placed in relation to surrounding structures as to permit of temporary enlargement during the persistence of that activity. When the organ returns to the state of rest or period of self-reparation, it may be said to have resumed its normal, or standard, dimensions.

Secreting organs, in some of which vascular turgescence is extreme and prolonged, are relieved of their excessive congestion by their tubular outlets. The elasticity of the en-

closing capsule exerts its beneficial effect toward the same end by inducing centripetal pressure, and this tends to diminish the size of the organ as soon as, its function performed, its state of physiological excitement begins to diminish. The elastic capsule thus maintains the healthy quiescent size of the organ.

The liver is enclosed within a strong elastic peritoneum and it has also its proper elastic, but thin, capsule; and I may add, as probable, that the tissue found in Glisson's capsule, surrounding the portal vessels, and so on, in their distribution within the liver, may influence their condition by its elasticity. These forces, aided by the contractile power of the blood-vessels themselves, bring the liver back to its condition of rest and maintain it; thus allowing the individual minute secreting parts to recover their physiological strength and their tone.

Again, the liver is so placed as to have the additional advantage of pressure from without, by its being subject to the contractile power of the muscular walls of the abdominal parietes and the diaphragm, especially so during exercise and increased respiration. This no doubt explains the benefit of walking-exercise in cases of congested or torpid liver, at which occasions the liver is compressed between the diaphragm and the respiratory part or upper half of the abdominal parietes.

Oliver Wendell Holmes ("Autocrat of the Breakfast Table," p. 66), treating of the value of walking, rowing, and riding, writes thus of the influence of the latter upon the liver:

"Saddle-leather is in some respects even preferable to sole-leather. The principal objection to it is of a financial character. But you may be sure that Bacon and Sydenham did not recommend it for nothing. One's *hepar*, or, in vulgar language, liver—a ponderous organ, weighing some three or four pounds—goes up and down like the dasher of a churn in the midst of the other vital arrangements, at every step of a trotting horse."

I would here suggest that every squeeze of the liver upward, in any of the exercises named, must send a squirt of venous blood through the inferior vena cava into the closely contiguous right auricle, while every downward movement draws open the same vein slightly in readiness for the next upward jet.

[To be continued.]



Vaccine- and Serum-Therapy in Everyday Practice

VII. Infections of the Skin and Subcutaneous Tissues (Continued)

By W. C. WOLVERTON, M. D., Linton, North Dakota

[Continued from July issue, page 592.]

Erysipelas

AS WAS remarked when we were considering the subject of cellulitis, erysipelas is the most typical form of that disorder, and is caused by a special variety of streptococcus, namely, the streptococcus erysipelatis of Fehleisen, a microorganism of extreme virulence. However, cultures made from cases of erysipelas always show staphylococci in great numbers coexisting with the streptococci. Consequently, in the bacterin-treatment of this dangerous malady, it has become quite customary to use a polyvalent combined stock bacterin, containing, in addition to the specific streptococcus, the various staphylococci, or at least the staphylococcus albus.

Owing to the extreme virulence of the specific etiologic agent and the consequently rapid course of the disease, autogenous bacterins are impracticable; besides, the reports of many competent observers show that stock bacterins yield brilliant results in erysipelas.

The initial dose, for adults, of the combined bacterin should contain about 20 million streptococci, combined with 100 million staphylococcus albus. If some improvement is not observed within twenty-four hours, the dose should be repeated, but increased by 25 percent.

The first dose of bacterin rarely stops the spread of the disease, there being usually some extension during the ensuing twenty-four hours or so. But in most cases a change will be noted in the color of the infected skin, from an angry red to a darker, brownish-red; the usually sharply defined and elevated margin now shows little or no elevation and shades off gradually into the surrounding skin. Relief of pain and burning is usually experienced by the patient within a few hours.

The streptococcus does not stand heat well; so, heat, locally applied is of considerable value.

Iodine ointment, U. S. P., with ichthyol, 25 percent, applied to the infected area and well out into the apparently uninvolved tissues is a time-tried remedy. Some writers advocate the local application of undiluted

phenol, to cause desquamation; but, personally, I prefer applications of iodine and ichthyol, as just recommended.

One other external measure merits mention, namely, a dressing kept saturated with 95-percent alcohol. Pawlowsky's laboratory tests show that this rapidly destroys the streptococci. It strikes me that the addition of tincture of iodine, 10 to 15 minims to the ounce of the alcohol, might enhance its bactericidal properties.

For internal administration, the indicated remedies of merit are calcium sulphide, strychnine arsenate, quinine, and tincture of ferric chloride. Or the iron, quinine, strychnine, and arsenic may conveniently be administered in the form of the triple arsenates, which certainly is a much more agreeable preparation than quinine sulphate and tincture of ferric chloride.

Paronychia (Felon, Whitlow)

In this class of infections, the staphylococci are almost invariably the infective agents; but in those cases in which the bone is involved the Bacillus tuberculosis is sometimes the causal organism.

If these cases are seen *early*, bacterin-treatment gives good results. If pus is present when the case is first seen or should it subsequently develop, incision will be necessary, with dressings kept saturated with Wright's citrate solution. A very useful measure, in conjunction with bacterin-treatment, in early cases, is, to wrap the finger with a thin layer of absorbent cotton and saturate the latter with 95-percent alcohol, then drawing a rubber finger-cot over the alcohol-wet dressing. This treatment has given extremely satisfactory results in my own practice and has been highly recommended by others. It often aborts the felon. Calcium sulphide, internally administered, acts synergistically with the bacterin-treatment.

Furunculosis (Boils)

To anyone who is going through the harrowing experience of a "crop of boils," any method of treatment offering promise of a speedy cure "sounds good." Such a sure

and speedy cure is easily obtainable through the use of two remedial agents, namely, stock combined staphylococcus bacterin (polyvalent) and calcium sulphide. The dose of the bacterin should be about 100 million of each variety of staphylococcus present in the bacterin, for the initial dose. The dose should be repeated every two or three days, slightly increased, if marked improvement does not soon take place. As the condition improves, the interval is to be lengthened to five or seven days. When the attack seems entirely past, a dose of about 500 million of the combined staphylococcus aureus, albus, and citreus should be administered at monthly intervals, until all danger of recurrence is past.

The calcium sulphide is to be given to saturation, as heretofore explained.

A local application that often gives considerable relief is cataplasm of kaolin applied "hot and thick," as we have so often been told.

When suppuration occurs, the pus must, of course, be evacuated. Sometimes this may be accomplished by aspiration, using a hypodermic syringe as aspirator.

These patients are usually benefited by the administration of a hematinic, such as the improved Bland's mass or the triple arsenates.

Attention is also to be given to the bowels, to get rid of autotoxemia. Here, the proper use of calomel and saline laxatives is indicated.

Fistulas and Sinuses

These conditions are mostly chronic in nature; hence, we should logically expect to find a "mixed infection" present; and this is quite commonly the case. The *Bacillus tuberculosis* is probably the most frequent primary invader; but soon the pus-group of cocci gain entrance, and a "mixed infection" is in evidence—so much so, oftentimes, as to conceal the real primary invader.

The nature of the bacterial flora will depend considerably upon the surface upon which the fistulous tract opens or the cavity with which it connects the external world. For example, false passages communicating with the lung or pleural cavity are commonly infested with the *Bacillus tuberculosis*, pneumococcus, streptococcus or the *Bacillus influenzae*; in those connected with or situated near the intestinal canal, we naturally should expect to find the *Bacillus coli communis*, *Bacillus proteus vulgaris* (group), and the pyogenic cocci; if the fistulous tract opens

upon the surface of one of the extremities, then the staphylococci and streptococci are likely to be the invading germs.

If possible, a microscopic examination, at least, of the discharge should be made, so as to determine the nature of the offending microorganisms. Then the appropriate bacterin may be selected intelligently. Oftentimes, in these cases of an essentially chronic character, autogenous bacterins will be indicated; however, resort should first be had to the polyvalent stock preparations, for usually they are efficacious if they contain the essential organisms.

In the bacterin-treatment of these fistulas and sinuses, there is constantly a tendency to close at the outside, only to break down later. One should make sure always to pack the fistulous tract lightly with a wick of iodoform-gauze, so as to have the tract close from the bottom.

Again, owing to the characteristic chronicity of these cases, it will generally be found, in old cases, that the tract is surrounded by a dense "pyogenic membrane," or wall consisting of leukocytes, coagulated fibrin, and cellular detritus. This may with profit be removed by careful curettage. Then pack with gauze saturated with citrate solution, to facilitate the outflow of antibody-laden serum.

If a foreign body exists, such as (in osteomyelitis, for example) a sequestrum of bone, we naturally do not expect the administration of a properly selected bacterin to effect a cure until we have first removed that foreign body. This fact is too often overlooked and, thus, bacterin-treatment is unjustly charged up with failure.

Where, after the infection has been overcome by proper bacterin treatment, the fistulous tract shows no disposition to close, it can be stimulated by packing with a narrow strip of iodoform-gauze dipped in balsam of Peru. These being chronic conditions, the bacterins will be employed in fairly heavy dosage, at comparatively long intervals of from a week to two weeks and extending over a long period of time, perhaps several months or even a year or more.

The initial dose of the streptococcus, pneumococcus, and bacillus coli should be from 30 to 50 millions; that of the various staphylococci about 100 millions of each variety present.

In these cases, owing, again, to their chronicity, anemia is very prone to be a concomitant factor. In such a case, the triple arsenates are indicated. If the case be

tuberculous, then codliver-oil undoubtedly is of value. Made into an emulsion with fresh eggs (both white and yolk) and flavored with a small quantity of methyl salicylate, it is quite palatable.

In writing upon the treatment of fistulas and sinuses, one must not forget the "Beck treatment," that is, a paste composed of bismuth subnitrate and petrolatum, sterilized, injected under moderate pressure into the tract. This method of treatment has sometimes effected a cure when all else had failed.

Impetigo Contagiosa

This infection is due to the streptococcus or to the various staphylococci, especially the staphylococcus aureus. The dosage of a bacterin is from 30 to 60 million streptococci and 50 to 100 million staphylococci for the initial dose; which may be increased somewhat if speedy improvement does not ensue. The interval should be from four to seven days.

As to local treatment, I remove the crusts and blebs and paint the affected surfaces with full-strength tincture of iodine. In this way, the spread of the infection is soon stopped. I then give the patient a small quantity of the same tincture, with instructions to open each vesicle or bleb as soon as it appears and paint the raw surface with the iodine. In chronic cases, it is often advisable to prescribe an ointment containing iodine ointment, U. S. P., and balsam of Peru, 1 dram of each, zinc-oxide ointment, 6 drams; this to be applied freely, once or twice daily.

The patient should, of course, be informed as to the infectious and autoinoculative nature of the disease, and warned against scratching with the finger-nails.

Calcium sulphide and quite often the triple arsenates are the indicated remedies for internal administration.

Sycosis (Barbers' Itch)

It was in this particular class of cases that Almroth Wright scored his first notable successes, and it was his unvarying good results in these stubborn infections which encouraged him to go on and further develop and broaden the field of bacterin-therapy.

The disease consists in an infection of the hair-follicles of the beard by the Streptococcus or the Staphylococcus aureus and is exceedingly resistant to treatment by ordinary means. I well remember that our professor of dermatology cautioned us to tell our sycosis-patients that, while we could cure them, it would in all probability take six months

to accomplish this much to be desired result.

The dose of bacterin and the interval are about the same as those given for furunculosis and eczema. Epilation and local hot citrate fomentations are measures of value.

Calcium sulphide to saturation is advisable as internal treatment.

Ulcers

The bacteriology of ulcers covers a wide range of microorganisms. Many ulcers are either tuberculous or syphilitic, primarily; but these soon suffer secondary invasion by the members of the pyogenic group of bacteria. Other ulcers may be the result of an aggravated case of varicose veins, a slight trauma often being sufficient in these cases to cause the devitalized tissues to break down, with the consequent production of an ulcer.

In any case of chronic ulcer, a combined bacterin containing the various members of the pyogenic group should be administered, for overcoming the secondary infection. The affected part should be put in that position which is most favorable to promote the circulation, that is, somewhat elevated, especially when the ulcer exists upon the lower extremity. Citrate dressings should be applied, to promote the outflow of lymph. When the floor of the ulcer presents a thick layer of indolent granulation-tissue, careful curettage is indicated.

In syphilitic ulcers, it is self-evident that systemic treatment is demanded; the local condition will not greatly improve until the underlying disease is overcome. For local application, calomel or the oldtime black-wash are time-tried remedial agents of great value.

In the case of tuberculous ulcers, one must again depend to a great extent upon the treatment of the underlying condition. This treatment consists quite largely of proper hygiene and diet.

In varicose ulcers, an elastic bandage is of great utility.

In the case of any ulcer, after the pyogenic infection is controlled by means of bacterin-therapy, the application of local stimulating remedies is in order; the most useful of these being silver nitrate, balsam of Peru, and scarlet-red ointment. Ofttimes, painting the ulcer with tincture of iodine is of benefit.

Chancroidal ulcers yield to cauterization with nitric acid carefully applied on a glass rod, and followed by copious dusting with

iodoform or other iodine-containing dusting-powder.

In old ulcers of the shin that do not show a willingness to heal after the use of bacterins, curettage, and the local application of one or more of the stimulating remedies named a short time ago, skin-grafting may become necessary.

To secure a successful result from skin-grafting, the infection must first be overcome by the use of bacterins, possibly curettage to remove lowgrade tissue, the application of stimulating substances, to promote the formation of healthy granulations; the grafts, when placed, must be held absolutely immovable until they become firmly attached; and provision must be made for the taking up of such serum as exudes, without disturbing the grafts. A light, easily sterilizable rubber-netting is obtainable that will hold the grafts firmly in position and at the same

time permits a free escape of serum, to be taken up by sterile gauze applied outside the rubber-mesh material.

The grafts need not be large; I like to make them about the size of the head of a small finger-nail. They may be placed about one-fourth to one-half inch apart, depending upon the size of the surface to be grafted and the willingness of the donor of the grafts to furnish either a considerable number of them or only a few. The patient must be kept at rest in bed, with the leg elevated upon pillows, until the grafts have firmly taken hold and cutification is well under way.

This completes our consideration of the bacterin-treatment of the more common diseases of the skin and subcutaneous tissues. In our next chapter, we shall take up the treatment, by means of bacterins and synergistic remedies, of diseases of the bones and joints. *[To be continued.]*

Rocky Mountain Spotted Fever

By DEWITT P. HEIGGS, M. D., Fairfield, Idaho

EDITORIAL NOTE.—This disease is of so much interest to physicians practicing in the Rocky Mountain states that we hope Doctor Heiggs' paper may be carefully read and discussed freely—especially from the standpoint of diagnosis and treatment. We call special attention to the paper by Dr. Charles S. Moody, published in December, 1915, page 1102.

ROCKY MOUNTAIN spotted-fever, —also variously known as Rocky-Mountain-tick-fever, or simply, tick-fever, black fever, spotted-fever, and blue-disease—is an acute infectious disease of man and is characterized by a sudden onset with a chill, followed by continued fever, intense headache, severe pains in the back and back of neck, general muscular soreness, and a macular eruption, becoming petechial, which appears first on the ankles and wrists and later spreads to all parts of the body.

The history of this infection is somewhat interesting. It has been known in the Bitter-Root Valley of Montana for over forty years. The first recorded cases occurred in 1873, though it is probable that there occurred a few cases even before that. By this time, this disease has become endemic in the Bitter-Root Valley and also in the elevated vallies of Idaho, Utah, Wyoming, and Oregon. It appears in the spring and early summer months.

The Etiology

Among the predisposing causes, the following may be mentioned: Season, from March

to August, the most cases occurring in May and June. Sex: male in the ratio of three to one female, the difference being due to occupation. Occupation: those whose work takes them to the sage-covered plains and those who work in the mines and timber, sheepmen being especially liable to contract the disease. Age: no age enjoys immunity, though the most of the cases are found in individuals between the age of twenty and forty years. Previous attacks seem to confer permanent immunity, though in eight years' practice I have had two patients who gave an undoubted history of having had the disease, one of them six and the other eight years before.

The exciting cause does not seem to be definitely known. Wilson and Chowning, in their report, said that they found in the fresh and stained blood bodies which they held to be hematozoa, and which they named *pyroplasma hominis*; however, later investigators, as Stiles, King, Ricketts and others, failed to substantiate these findings. During the season of 1915, I examined four fresh and fourteen stained specimens of blood taken from patients in every stage of the disease and

in two cases found an opaque rod-shaped body about one-third the length of the diameter of a red blood-cell. I doubt whether this was a causative factor of the disease. A short time ago, I read in the newspapers that someone in Utah claimed to have found a definite organism causing this disease, and I hope investigation will verify this; but, till this is done or further investigation reveals something more definite, we shall have to assume that the cause of Rocky-Mountain spotted-fever is not positively known.

Its transmission by the tick (*dermacentor andersoni*), male and female, is demonstrated beyond a doubt by several investigators, as Rickets, Maxey, McCalla, and others. In my own practice, I have found 97 percent of the patients to give a history of having been bitten by a tick between five and twelve days before the onset of the disease, but also I have had a few who positively denied having been bitten by a tick, and in whom a minute inspection failed to reveal a tick bite. This led me to believe that some other suctorial insect might convey the disease and whose bite left but little abrasion on the skin. But the fact that we find the tick bite in almost all the cases and that the season of the disease corresponds with the tick-season will serve to place the blame on the tick as the carrier of the germ. It is definitely settled that the tick does not act as an intermediate host, its role being purely mechanical.

The Pathology

The skin shows at first a macular eruption, which later becomes petechial and on dependent parts may become confluent. In severe or fatal cases, there may be marked evidence of extravasation in the rete mucosum, especially of the thighs and hips. There is in some cases a velvet-like appearance of the cheeks, and in most cases there is evidence of a recent tick bite, situated usually on the ankle or in front of the leg just above the ankle.

Investigators say that *post mortem* inspection reveals the cortical and spinal meninges to be normal or but slightly hypostatically congested. The same condition was found in the lungs; the heart was flabby and friable, with small petechiae beneath the epicardium. The gastrointestinal tract appears normal. The liver is enlarged and shows fatty infiltration. The pancreas and spleen are enlarged. The kidneys are enlarged and red in every case and there may be small hemorrhages into the pelvis; the cortex swollen but not adherent, the pyramids red and sharply

defined. The microscope shows general cloudy swelling.

The blood of the patient shows a diminution in the red cells as the disease advances. The hemoglobin also is diminished but not to the extent of the red corpuscles. The leukocytes are said to be normal or nearly so, but I found in fourteen cases an average of 12,500, the highest being above 25,000; the small lymphocytes being relatively increased. Late in the disease, I found a few megaloblasts, and in one case, where the patient was above fifty-five, there were a number of poikilocytes late in the disease.

The Symptoms

The incubation-period is from three to ten days or, in some cases, a little longer, during which time there is increasing malaise, with pains in the bones and muscles, especially of the back. One of the first things complained of by the patient is, a stiffness of the wrists and ankles. The onset is usually announced by a chill, which may be severe. There may be nausea. Severe headache and backache are usual, bowels are constipated, the tongue is furred. Often the skin has a yellowish hue and in some cases there is marked jaundice. Nosebleed is common during the second week.

The temperature rises rapidly after the initial chill, reaching 104 degrees or higher, and stays quite high until about the tenth day, when in favorable cases it slowly declines very much, as does a typhoid-temperature. In very severe or fatal cases, it may reach 106 or 107 degrees about the eighth or tenth day. The pulse usually is high, 110 to 140 in average cases. Full and strong at first, it becomes weak and thready as the disease progresses. The respiration is increased being from 36 to 40 per minute. Bronchitis is common, pneumonia a frequent complication. The digestive system shows but little disturbance as a rule, though late in the disease there may be some nausea and, in severe cases, persistent vomiting. Enlargement and tenderness both of liver and spleen appear early. The urine is scanty and highly colored, with a trace of albumin, and often containing granular and blood casts. The nervous symptoms often are quite marked, but not at all alike in all cases, some patients showing marked irritability, pain and hyperesthesia and often photophobia, while others, especially severe cases in old people, show delirium of the low muttering type. Coma usually precedes death.

The rash appears about the third day, is first seen on the ankles and wrists, then

spreads toward the trunk, the abdomen being the last place for it to appear. The eruption is thickest on the back and thighs and fewest on the abdomen. When it first appears, it consists of bright-red macules, and disappears on pressure: the spots are discrete and about 1 to 6 min. in diameter. As the disease progresses the macules become darker and petechial and reach their fullest development about the eighth or tenth day, the spots becoming confluent over dependent parts. With the decline of the fever, the spots fade, leaving a dark stain in the skin, the stains persisting for some time. A warm bath will bring them out during several months, in some cases. Desquamation begins when the convalescence is well advanced and is quite marked on the hands and feet. Convalescence usually begins the third week and is quite slow, and in most patients above fifty years of age it may take months to fully recover.

Complications and Sequels

Gangrene of the skin over the toes, fingers, scrotum, and penis is sometimes seen. Lobar pneumonia is a frequent complication. Cystitis is common. Heart exhaustion must be watched for.

Among the sequels of the fever these may be mentioned: Nephritis, usually transient. Heart lesions, which tend to persist for months. Blindness in one or both eyes is a rare sequel due perhaps to the eruption occurring along the optic nerve or in the nerve-sheath. A suicidal mania sometimes appears late in convalescence. I have known two cases of suicide, and this leads me to believe that there may be more meningeal involvement than is usually supposed.

Diagnosis and Differential Diagnosis

The diagnosis is made from the mode of onset, the season, the history of a tick bite, the knowledge that the disease is endemic in the locality, and by the eruption, which is characteristic.

There are but few diseases that are likely to be confounded with this one. Early, it might be mistaken for typhoid fever, influenza, rheumatism, and smallpox, but the time of the year and absence of the Vidal reaction would serve to differentiate it from typhoid fever. Influenza shows nearly the same prodromes, but the history of a tick bite would serve to differentiate here. In rheumatism, the history of previous attacks, together with the absence of a tick bite, would make the differentiation easy. Small-

pox resembles this disease somewhat in the early stages, but the absence of an epidemic and the history of a tick bite would serve to show that it is spotted-fever. Later, typhus fever might be confused with it, but the locality and the endemic history of one and the epidemic character of the other would make the differentiation quite easy.

The prognosis of this disease depends upon location, age, season, and altitude. In the Bitter Root Valley of Montana, the mortality is very great, going as high as 80 percent some seasons, while in Idaho and some of the valleys of Utah the mortality is less than 4 percent. It is very much more fatal in people past middle life than in young adults, while in children it is very mild, as a rule. The earlier summer months show the greatest mortality, and it seems that the higher altitudes give a lower death rate than do the lower altitudes.

Treatment

There is no specific or established serum treatment as yet. So the treatment is largely symptomatic, indefinite as that term is. An outline of the course of treatment which has given very good results in my hands is about as follows: variations according to conditions, of course:

For the early soreness, I usually give the salicylates or aspirin. We usually employ a little calomel at the beginning of the disease and follow this with a mild laxative saline, and repeat the saline every other day for the first few days and as often after that as it seems required. For some time, we give a small dose of belladonna, to hasten the rash. We examine the urine every few days, and give the indicated remedy. For the fever, aside from the salicylates, we sometimes employ the vegetable antipyretics, and during the height of the fever we sponge the body with alcohol or a mixture of equal parts of alcohol, aqua hamamelis, and water. In the later part of the disease, we give 1-40 grain of strychnine every four hours, to sustain the heart. The delirium we treat with alcoholic sponging and the ice-cap to the head, and sometimes we give a few doses of the bromides; though we do not follow this as a routine and would especially caution against the free use of the bromides in this disease. The sponging as above is of great benefit late in the disease, as it helps to keep up the heart's action and the strength of the patients, and they always tell you how much better they feel after the sponging. Other symptoms should be treated as they arise.

During the convalescence, a good tonic is needed here, the same as after any other exhausting disease. The diet should be light, yet sustaining. Buttermilk serves well as a food, is well borne by the stomach, and is very grateful to the patient. Convalescence should be watched carefully and any complication or sequels promptly recognized and combated.

I will add that this disease is becoming more widely distributed over the north-west, and we hope for a means of limiting it as to locality and, finally, a means of stamping it out altogether. And the interest taken in this work by the government and private workers will accomplish this in time, I am sure. We are also hoping for a more rational or specific treatment soon.

A Study in Collections

By F. L. EDMAN, Argos, Indiana

FEW tasks in any line of business are more annoying or disagreeable than the converting of long-standing accounts into cash. It is one of the easiest things in the world to let a person get deeply in debt to you—much easier than insisting on prompt payments. But when the amount owed begins to assume serious proportions and the debtor still fails to come across—then what?

If it were possible always to play safe, in all cases giving yourself the benefit of the doubt, the number of your bad accounts would be substantially diminished. However, even then they could not be eliminated entirely; for it frequently happens that a man whose credit has always been above reproach for some reason falls into the slow-pay class, which is the first step toward making him a doubtful risk.

Now, what causes a man, once honest, to become careless and indifferent about his honest debts, even to the point of trying to sidestep them entirely? In practically every instance, the man who swerves from the paths of honesty does so because payment of his accounts means working a hardship on himself. It has been discovered that the majority of such offenders are married men. While single, with no one to support but himself, the average man experiences little difficulty in meeting his few obligations as they come due; but, unless he has accumulated a considerable sum or has an exceedingly large income, he is liable to find pretty tough sailing for at least the first year or so of his matrimonial career.

With a lot of unlooked-for expenses, the married man soon becomes all but submerged in the quagmire of debt. There are so many demands on his money that it seems almost impossible to make any appreciable progress toward paying his bills. His creditors become impatient and begin to push for settle-

ment. In time, he becomes discouraged and resentful. He defers payment in all cases just as long as possible; and, of course, the longer any debt runs the harder it is to pay. At last he succeeds in wearing out one of his creditors, who gives the account up as lost and ceases to bother him about it. By and by, after a few more obligations are sidetracked in this manner, the debtor's conscience becomes so calloused that debt-dodging seems almost legitimate.

Few men of the medical professions have gone into the collection-problem deep enough to discover the most effective means of getting the money, although it must be recognized as a vitally important thing to be considered; for, no business can long exist without adequate working capital. Ordinarily, physicians send out statements once or twice, and to those who fail to respond they then make perfunctory appeals through letters or personally.

It is a wanton waste of time and labor to send out collection-letters that are gotten up in a haphazard, loose-jointed manner. Simply calling the matter to the debtor's attention is not sufficient when it has reached a point where a letter is necessary. Considerable thought must be given to construction. The whole thing must be worked out with great care. The viewpoint of the debtor must be considered—the possible reasons why he doesn't pay anticipated, and argument produced that will offset all opposition.

A surprisingly large number of almost any physician's bad accounts can be collected without even antagonizing the debtor if the proper method of approach is used. The average slowpayer is not entirely devoid of honor, and it has been proved that many who are absolutely bluff-proof and execution-proof will "come across" with the money when appealed to in the right manner.

That a man's credit standing is of inestimable value to him, is a well-established fact. The slowpayer either doesn't fully realize that in permitting accounts to run long overdue he is jeopardizing his credit, or else he doesn't thoroughly appreciate the real worth of having a good standing with the business and professional men of his community. Bringing the debtor to understand that withholding payment of his obligations really works a serious injury to himself, is a potent factor in making collections.

We quote the following from one of a chain of letters that have proved successful:

Believing that it is your intention to be always prompt with the payment of accounts, I call attention to the fact that there is on my books a charge of \$ against you, which has been running for some time.

I understand how these things will be occasionally overlooked, and, of course, appreciate that you have not purposely neglected this matter. However, inasmuch as long-standing accounts are not desirable either from your standpoint or mine, I ask that you make settlement promptly.

Here is a paragraph from another good collection letter:

Your past record does not indicate that you are the sort of man who would wilfully sidestep a just obligation, and I do not believe you are. However, your action in permitting this account to run so long is a decided detriment to your credit standing.

The letter containing this paragraph has been very effective in collecting long-standing accounts. It has brought settlement in some of the most hopeless cases. Debtors who successfully withstood the attacks of other business men, assisted by collection-agencies and attorneys, have responded to this appeal. There is no question but that it strikes the spot in the majority of cases. It leads the debtor to believe that the creditor still has

confidence in his ability and willingness to pay, but at the same time warning him that this confidence is being shaken by his delay in settling.

The following is taken from a letter written to a debtor who ignored the first request for settlement:

Had I not considered you thoroughly honest I certainly should not have granted you the liberal extension of credit which you have enjoyed. Your failure to pay within a reasonable time, together with your ignoring of my first letter, is a surprise and disappointment to me. However, it has not entirely shaken my faith in your integrity. I still think you will pay this account and not force me to sue for settlement.

The following is from a final appeal before suit:

I assure you I have no desire in any way to injure your credit standing in this community. I much prefer to protect it and keep you on my list of "desirable patrons." A first-class credit is a most valuable asset to you—its real worth cannot be measured in dollars and cents. Therefore, I ask you, in all sincerity, to think twice before compelling me to take legal action in forcing payment of this account, thereby making public a matter that will seriously impair your standing with all business men of this town.

I am going to give you ten days more in which to pay this account and save your credit. Suit will be brought immediately if settlement is not made by the end of this period.

Of course, no physician can well afford to become extensively involved in lawsuits, nor should this be necessary. However, it is advisable occasionally to make examples of certain hardshelled debtors, for the effect it will have on others. Once you win a reputation for doing as you say you will, money should come in with little difficulty; for, delinquents will know what to expect if they do not pay.

An Old Doctor's Life Story

An Autobiography

By ROBERT GRAY, M. D., Pichucalco, Mexico

[Continued from page 600, July issue.]

MOST assuredly I should abandon improved galenic medication with electric violence were something to come within my reach that would protect from physical danger and relieve distress more effectively than what I now possess and laud as antidotal to human ills. We are on the border land of a system of medication the mission of which will be to preserve health, rather than to cure

disease—the most feasibly practical proposition ever offered to mankind, from the medical realm. It is a feature of my daily study and long has been an element of my practice, naturally no more than experimentally in the case of a few isolated families desirous to be well and to remain healthy. Of course, a general conversion of the populace to this notion were absurd to contemplate down here, more so even than elsewhere, ere there may have been some preparatory mental and moral

elevation among the masses. The idea is attractive to the educated and intellectually endowed, as a measure of practical hygienic economy, regarding which latter my own robust personality is a living illustration—a miniature walking encyclopedia, as it were—that appeals in mute eloquence to all beholders to seek the fountain of health, the elixir of all the life one needs in this world of pathetic woe. And what a recompense is unbroken, ever abiding health for some other hardships and inconveniences! Were the trials of physical pain and its associated despondency the predominating genius of my life, certainly I should never bend me over these pages. My gratitude for the health that is mine is boundless, and this well-being renders me cheerful where suffering would despair.

As all that is claimed for calcium sulphide is familiar to the American profession, I do not think it necessary to go into details about minor uses to which I have put it. Let it suffice to say that two claims made for it are not borne out by experience; namely: that it will insure immunity from attacks by the voracious tropical mosquitoes, and that it will serve as a preventive of yellow-fever. It slunks down and refuses to serve in those important places; nevertheless, it does most of the other minor chores credited to its efficacy.

Antifebrin as an Antifebrile and Febrifuge

Antifebrin (Merck's pure German-made) is my febrifuge, to break fever, in all cases where I do not employ aconitine—wherever we formerly used quinine—for I have found it a safe and promptly acting substance. It was Doctor Brodnax who induced me to adopt it in my fever-practice, the fearful stories I had read about it having, up to then, deterred me from even proving it. Doctor Brodnax wrote me that he had had three cases of extreme test, as follows: One of his patients took 40, another 90, and yet another 180 grains of antifebrin (not authorized by him); the second and third, he supposed, with suicidal intentions, while the other thought that, if one powder of 8 grains would help him, five of them at once surely ought to cure him completely. The one who took the 180 grains experienced no more untoward symptoms than he would have had from 60 grains of quinine. And the man further assured me that persons who were attacked by chill and fever at 11 a. m. and immediately took the regulation dose of antifebrin at once, frequently would go back in the afternoon and finish the day's work.

This information, from that man, pacified my misgivings, and I started using the remedy. I got exactly the same results reported by Doctor Brodnax; only, I have never had to record an excessive dose. Nor has there been the semblance of an accident in the many years of its extensive employment by me, even though I have dispensed as many as, or more than, fifty doses in a single day, sometimes, during virulent epidemics of malarial fever; and rarely has a day passed when none was dispensed. There have not been, on an average, 3 cases in 100 in which the fever did not subside quickly, the temperature usually reaching normal within an hour or very little more. Occasionally I have seen a subnormal temperature (36.6° C.) to result; but, this does not prove an unfavorable incident. However, I never recur to this large dosage in the absence of fever—employing, instead, broken doses of quinine (most frequently the quinine arsenate), as tonic and preventive of relapse. A purge, of course, is always in order.

Antipyrin, I find, produces unfavorable effects that antifebrin never causes. Also, there are various other antifebrile coal-tar derivatives closely analogous to antipyrin in deleterious action, that it were better not to employ. Sometimes I use the antipyrin and quinine sulphate, in equal parts, in the form of an enema—the quinine being dissolved with a little lemon-juice or a few drops of sulphuric acid in very little water. I do this in cases of dangerously high fevers when administration by mouth is impracticable or when action thus might be too slow. I never fail to get the desired reduction of fever-temperature from these enemas.

For children, I keep on hand the antifebrin in the form of a compound mixture, this to be used by drops, according to age; and I get beautiful service. I have never used it hypodermically, although with the French profession that is the favorite method for the employment of antipyrin in the treatment of children.

Brief Mention, and Positive Medication

I have been getting such excellent service from creosote and guaiacal, as well as from some of their derivatives, in all classes of pulmonary involvement, that this fact should be familiar everywhere.

I do not pretend to know how to treat yellow-fever; and I may know as much about it as some experts, as a few men are esteemed. I treat it much the same as I combat pernicious fever, struggling ever against the

vomit, when I do have such patients; some of whom die and some getting well, probably about as they would come out without any medication. Someone will yet discover the appropriate antifebrin for yellow-jack, and then all the world will wonder why it was not known all the time. I cannot even try to guess what this preparation may be—I have no genius for discovering that important antidote. Still, it is much to suppress these epidemics—indeed, really better than a cure, were this possible in the backwoods, among the jungles and bogs of tropical wilds.

I know of no cure for well-developed smallpox, and I hope ever to combat that dreadful pest by preventing its development.

While some of the important substances I have named were not known to Galen, they are, withal, an acquisition in improved medication. Whenever there is to be had the active principle of any galenic substance among those not named by me, if I require its service, I am likely to employ it about the same as anyone else would use the standard preparation, in the same place, except that my treatment would be positive, and administered in broken doses equivalent to what the misguided brother would imagine he was administering in full dosage. I should be certain of my dosage and its potency, while it would be half random guesswork with the crude standard preparation.

Burgess' Wonderful Magnesium-Sulphate Solution

Epsom salt, as intimated earlier in this account, has been enshrined and crowned by Doctor William H. Burgess, an old confederate surgeon who once was within the radius of my eye, ere he was aged and gray and I was not yet estranged utterly from earthly hope, the lone survivor of all those who wore the luckless gray personally known to me, be it in intimate association or in mere passing association—a reminiscence amply sad to make this flickering lamplight illuminating this sheet burn bluer than its wont ere the spectres of the still and solemn hour obscure the pale rays with the dim shadows of their sable wings.

These weird repinings—or what you will—heaven knows how earnestly I have struggled to relegate them and their inspiring causes to the fathomless depths of oblivion. Yes, I have found surcease from their pursuing menace for uncertain seasons, till they come again softly stealing back upon me, over the lapse of years, over the breadth of the world, over the sods of the grave. This life, left

of hope and alienated from any kind, not enthralled in the woes of sick life, must be more intense and thrilling than that of those who have hopes not perished and loves not dead. But—but—whither is Doctor Burgess, the romance of a dead time and dead ideals, leading me? Let me not drift away from the thread of the story connecting my old, now dead, friend Burgess and his splendid magnesium salt therapy.

When I first read the propaganda of that new faith of the old surgeon, I pondered a long time, trying to imagine from what fairy tale he caught the gossamer drapery of his fantastic disquisition. Yet, this saline had the redeeming merit of at least being innocuous in external applications, exactly where it was to work its wondrous miracles. I was sadly in need of an auxiliary able to serve me in the way the flowery literature of Burgess so liberally proffered me helpful aid. A peseta in Mexican coin would quickly solve the problem. Doctor Burgess surely either was a cheap John or else a noble philanthropist. He in no wise hinted at remuneration, nor suggested that one prove, and then pay if results were satisfactory. He was modestly retiring for a discoverer of a precious panacea for human ills.

I made up a jugful of the solution. The woods were full of suitable afflictions for making tests. I sent bottles of the solution, with directions for use, to a number of suitable cases. In a few days, several of the patients put in appearance to ask for more of that medicine that had done them more good than a muleload of any ever tried before. And thus the reports continued to come. I used the solution in all painful conditions, inflammations, bruises, erysipelas, rheumatism, and eczema, with cheering success. But, that the reader may not imagine that I wish to show partiality to Doctor Burgess because we were in the shipwreck of the Lost Cause, I am going to quote from Doctor George Roberts, of Lincoln, Virginia, a rather below fair sample of what I have seen reported by scores of other doctors. This is what he writes:

"Doctor Robinson is evidently a follower of Doctor Burgess. Let me say that within the past year I have used and prescribed very near a barrelful of epsom salt, and the only trouble is that the patients get well so quickly that the doctor does not make enough out of his practice to provide for his family as he should. The epsom tub-bath and sponge-bath are the greatest therapeutic measures known. Adopting Doctor Burgess' methods,

there is nothing impossible, curing obstinate diseases in three to four weeks, when the patients were given up to die. Paralytics turned out of the big hospitals as incurable are greatly improved.

"It seems hard to believe, but these are facts which I have demonstrated, and Doctor Burgess deserves a monument higher than Washington's. I am not one to scatter flowers on a dead man's grave, but give him his tribute while alive.

"I never tell a patient what I am using, but color my epsom salt for the bath with a little carmine, making it a delicate pink. They never saw a drug like it in any store and are willing to follow directions. They would laugh at the idea of epsom salt, as some doctors will at what I have written."

I have here, somewhere in the office, in the London *Lancet*, a report of 700 cases of erysipelas, in every stage, treated with epsom salt, with thrice the cures ever attained with any other medication, early relief being experienced in every case; while the few who died had their sufferings appreciably modified. The death rate under this treatment was far below that from any other ever recorded from such a large number of promiscuous patients.

The solution is a valuable adjuvant in dropsical treatment, the swollen parts being sponged and the feet bathed with it as hot as can be tolerated.

I have had great success in the treatment of dropsy with anascarcin, an American proprietary preparation. This never fails me.

Those Predatory Bandits

If there is a possibility of putting information in an autobiography serviceable to a reader, it must be in divulging something out of current medical walks and likely to be turned to useful account. Some of the items I am jotting down would never have been in my experience in another more congenial practice. Stern and urgent necessity has actuated me to prove out many things to a finish that I never would have taken under consideration in pleasant fields of cheerful life. I do not thus refer to financial want; for, I am a stranger to gaunt and gnawing poverty, save for brief seasons after having been cleaned up by bandits—as has happened twice in my tropical pilgrimage—although I never was hungry in consequence of such ungenerous fleecings.

And now, although it seems that oil has been flung on the troubled waters between

the United States and Mexico, the peril here is greater than at any time since the inception of hostilities. While the outlaws are not in the immediate neighborhood, they can arrive any night whenever the federals are temporarily absent. The native people are in great terror, as other towns have been recently burned, and even bedding and clothing carried away. Probably I should not fare very prosperously in their hands and might be left without a house, if not without a head on my shoulders. Yet, all this makes a bridge to be passed when we reach it, all being within problematic possibility.

How Cactus Came Out Victorious

In recent years, I have said so much about cactoid (formerly known as cactin—the concentration of *cactus grandiflorus mexicana*) in medical journals that it seems superfluous to dwell elaborately on the substance here. It may be said to be glonoin of slower and less energetic action, being useful in feebly functioning heart, and to relieve arteriole congestion, which latter is often indicated by superficial cold and clammy skin through inaction of the pores, with excessive trunkal and cerebral heat. Cactoid may be employed for an almost indefinite time. I have used it for six months in anemic patients, with unvarying benefit. But, after the American Medical Association, through the medium of the Council of Pharmacy, put the substance under the ban, as worthless trash, I desisted from making reference to it, although continuing its use with increasing constancy. Finally Professor Lloyd, of Lloyd Brothers, Cincinnati, came along with a startling announcement that he had sent out circular-letters to thousands of doctors, requesting them to report what medicines, they employed most frequently, and in this way found that *cactus grandiflorus* headed the list as the medicine most frequently used by American doctors. This conclusively proved that the condemnation of the Council had not frightened the profession to abandon a meritorious remedy, which nothing else could replace in their *materia medica*.

For some two years I had supposed that cactus was relegated to the demnition bowwows by the American medical profession and that I was the only one of the browbeaten fraternity so stupidly stubborn as to continue its use. And now I am again lauding the intrinsic merits of cactoid in the medical journals whenever it happens to get into the kinks of my meditation when writing to them.

[To be continued.]

Abortive Poliomyelitis

A Type of Acute Epidemic Poliomyelitis

By PHILIP A. E. SHEPPARD, M. D., Boston, Massachusetts

THE abortive form of poliomyelitis cannot be regarded as an accidental occurrence in the epidemic expression of infantile paralysis, for it has been amply shown by many observers, and it is my own experience, that suspicious coexisting illnesses do occur in association with frank cases of poliomyelitis, and that, in a good many instances where a tentative diagnosis of abortive poliomyelitis was made, motor disturbances of varying degrees have later appeared.

In this paper the point is not so much to establish the actual occurrences of abortive cases but as far as possible to indicate the varying expressions of this type of the disease, the best means for detecting them and the therapeutic measures that should be tried in all of them.

At the outset it is safe to say that abortive poliomyelitis is a form of acute epidemic poliomyelitis in which paralysis does not occur.

In my experience as special medical investigator of the Massachusetts State Board of Health I have estimated that for every reported paralytic case there were at least two or three cases of the abortive type, and I found, further, that the manifestations of this nonparalytic form of acute epidemic poliomyelitis varied anywhere from a slight illness, with no motor disturbances, to a quite alarming illness in which motor disturbances seemed to threaten but did not develop.

The question naturally arises in one's mind whether or not this so-called abortive form is the more general type, and whether the more clearly defined paralytic forms constitute the atypical types.

We are safe to assume that it is possible, even probable, that acute epidemic poliomyelitis is an acute infectious process which may or may not be characterized by definite motor disturbances sometimes resulting in paralysis.

If it can be granted that this hypothesis affords a solution of a difficult problem, then we are facing a situation of greater magnitude than has heretofore been supposed.

By laboratory means it has been shown that the serum of abortive cases contained immune principles, so that one feels justified in

saying that acute infections not otherwise classified among the known infectious processes, and occurring during the seasonal expression and in the epidemic zone of poliomyelitis, may safely be regarded as acute epidemic poliomyelitis and treated as such until it can be shown to be otherwise.

The Recognition of Abortive Forms

Briefly, in this form of the disease there are found.

1. Cases that run the course and assume the character of a general infection.
2. Cases in which the leading symptoms are those of a meningeal irritation.
3. Cases characterized by much pain, "influenza-like" attacks.
4. Cases with well marked gastrointestinal disturbances.
5. Cases with upper respiratory troubles such as throat and bronchial affections.
6. Cases that simulate gastroenteritis or some other intestinal disturbance.

The problem of diagnosis is not such a difficult one for the clinician who will bear in mind these few types when called to a case in which he does not find the earmarks of any known infectious process sufficiently marked, especially when the case is encountered in a locality where acute epidemic poliomyelitis prevails, or occurs in a family where an undoubted paralytic case of the disease already exists. In any event, a tentative diagnosis should be made and the case closely watched.

Prodromal Symptoms

A further aid to diagnosis is vouchsafed to the observant practitioner if in his cases any of the following prodromal symptoms present, e. g.: (1) Irritability; (2) restlessness; (3) pain along the spine or in the extremities; and (4) apathy.

Now the diagnosis may with reasonable certainty be clinched, and the only safe precautionary measures are (1) to place the case under strict quarantine and very careful observation and (2) to confirm the diagnosis wherever possible by laboratory tests.

It would be of great benefit, in the solution of all our difficulties, if this form of poliomyelitis were taken more seriously. I firmly believe that it furnishes us with the missing

link, so to speak, in the chain of evidence of the transmissibility of this disease.

Important Symptoms During the Acute Stage

The following list of symptoms, varying greatly in degree and kind, are generally present in the majority of these cases. For brevity's sake I have placed them in a table.

1. Fever, 100°-106° F. (duration 2 to 7 days)
2. Vomiting
3. Restlessness
4. Apathy
5. Rigidity of neck
6. Headache (frontal)
7. Delirium
8. Stupor
9. Convulsions
10. Photophobia
11. Dysphagia
12. Sluggish pupils
13. General pain (early in 58 percent)
14. Absence of deep reflexes
15. Cold extremities (vasomotor changes)

I will add another table, in this connection, elaborated from a series of 198 cases that came under my observation, and which I worked over very carefully. This table will show the relative frequency of most of the symptoms given in the preceding table, with some additions.

Symptom	No. of Cases
Fever.....	198
Pain and tenderness.....	184
Brain symptoms.....	117
Headache.....	106
Retraction.....	79
Sore throat.....	59
Apathy.....	24
Delirium.....	19
Rigidity of neck.....	18
Cough.....	13
Irritability.....	13
Tired condition.....	9
Rigidity of spine.....	9
Lassitude.....	8
Strabismus.....	7
Change of T.....	6
Diaphragmatic breathing.....	6
Dysphagia.....	6
Sweating.....	5
Irregular pulse and respiration.....	5
Twitchings.....	5
Diminished or absent reflexes.....	5
Convulsions.....	4
Nystagmus.....	4
Anorexia.....	3
Weakness.....	3
Hyperesthesia.....	3
Stupor.....	3
Exaggerated reflexes.....	3
Regurgitation of food.....	3
Anxious expression.....	2
Tremor.....	1
Coma.....	1

Tympanites.....	1
Insomnia.....	1
Hiccough.....	1

With these facts and suggestions in mind (and realizing that the diagnosis must be made on general principles, mostly by a process of exclusion, plus whatever positive laboratory signs are available to us), I believe the diagnosis of abortive cases will be made earlier in the course of the infection, more frequently, and with greater certainty.

Since in a majority of cases a history is obtained of intimate contact either with an acute case or with a third (healthy) person who had associated with such a case, the weight of evidence points to the infection being a transmitted disease, and it should be handled as such. Instances bearing on this phase of the disease are being elaborated in another paper to be published later.

Incubation Period

The prodromal stage may occupy a period of a few days to a week.

Treatment

During the prodromal stage: Keeping in mind the etiology, enforce strict quarantine measures, screen the room, and remove all unnecessary furnishings. Now put your patient in bed and detail a special attendant.

In all forms of the atypical disease, start by opening the bowels, first cleansing the lower bowel with a small rectal enema consisting of 4 ounces of each glycerin and hot water. This secures an evacuation in about two to four minutes; I have never known it to fail. Give a tablespoonful of a mineral oil emulsion night and morning. Run in a laxative saline fifteen minutes before breakfast on the first day of the suspicious illness. Keep the patient in a comfortable bed to insure relaxation of muscles.

If gastrointestinal symptoms predominate, feed the patient on a diet of milk which has previously been treated with bacillus-bulgarius cultures. Care should be used that a reliable and vital culture be employed in this method of treating the milk. My method is to bring the milk to the boiling point, in a double-boiler, holding it there for thirty minutes; this insures the destruction of pathogenic organisms. Separate the boiler, cool the milk quickly to 90° F. and the water to 100° F. Add the culture, set up double boiler again, wrap in a blanket, keep in a warm place until the milk has junketed, then place in ice-chest, where it should remain until consumed.

If constipation is present, use the whole milk thus treated, and if diarrhea complicates the case remove the cream and use only a fat-free bulgarian-bacillus-treated milk.

As the patient recovers, cautiously add other suitable articles of diet depending upon the age of the patient, but be sure that everything is boiled.

Keep the mouth and teeth clean—particularly if throat and mouth symptoms predominate. Spray the throat with hydrogen peroxide in 1-10 dilution. Clean out the nares with a like solution; use these measures several times during the day.

Another thing worth while is to swab out the throat with a bouillon culture of the bacillus bulgaricus full strength—then use a

gargle twice daily containing the same organism in the dilution of a teaspoonful to the pint of water at 85° Fahrenheit. Hexamethylenamine, 5 grains to a tumbler of water, may be given once or twice a day.

For the rest, use good judgment and treat symptomatically until research has triumphed and we are given a specific serum. May this be soon.

In conclusion I feel justified in saying that, with the wealth of evidence on hand, *it is possible* to make a positive diagnosis in abortive cases of acute epidemic poliomyelitis and that, by treating such cases along the lines I have endeavored to set forth, we may reasonably hope for measurably successful results.

Syphilitic Nephritis

With Some Suggestions for Its Treatment

By M. W. THEWLIS, M. D., Wakefield, Rhode Island

A YOUNG man consulted me for a chancre. This went the usual course and was followed by the secondary symptoms. Four months after contracting the primary lesion, he began to complain of severe headaches and puffiness of the eyelids appeared. One night, while talking with friends, he was taken suddenly with coma, which rapidly became deep. He remained in this condition for four days. The urine showed a normal urea test, a slight trace of albumin, and some hyaline casts. A diagnosis of syphilitic nephritis was made.

The patient was put on a course of arsenic trioxide, 1-100 grain every three hours. He also was given a strict milk diet, and was kept in bed for five weeks on this regimen. At the end of this time, cereals were added to the diet and eventually vegetables. Three weeks from the onset of the attack, albumin appeared in abundance in the urine and granular casts were very numerous. At the end of five months, he had recovered sufficiently to enable him to resume his work.

Six months from the beginning of the first attack, the man was again taken with kidney symptoms and was obliged to give up his work. Ordered to resume the milk and cereal diet, he again recovered in four weeks, and has remained in good condition ever since. He has taken protoiodide of mercury constantly since the fifth week of the first attack. It is now three years from the first attack, yet, withdrawal of the mercury or a change to

any other remedy will immediately bring on again symptoms of renal irritation.

This case represents a toxiinfectious nephritis brought on by syphilis, following the secondary manifestations, and constitutes the early form of the disease. It is the same type of nephritis that may supervene as a complication of scarlatina, smallpox, pneumonia, influenza or erysipelas. The syphilitic toxin is capable of causing much destruction to the renal tissue and may assume a very malignant form, as in the case under consideration. The nephritis of syphilis may come early in the course or may appear late as a tertiary manifestation. Ordinarily when it comes in the course of syphilis it would be attributed to the use of mercury. However, a study of workers in this metal would show that they rarely have any kidney irritation, except in acute mercurial poisoning, in which case death may come from anuria, the result of nephritis. Workers in lead may show a nephritis, but those who work with mercury do not have any impairment of the renal tissue as a result of the metal. Moreover, in this case of mine, mercury has been the remedy employed constantly, while, whenever any other form of treatment was substituted, albumin and casts reappeared in the urine soon after, together with other symptoms of nephritis.

Usually there is no warning by minor symptoms of Bright's disease. In fact, attacks of headache, puffiness of the eyelids,

and albuminuria will be the only manifestations of an incipient syphilitic nephritis. In the present instance the kidneys were at fault, and, yet, there appeared no microscopical evidence of marked abnormalities in the urinary sediment until three weeks had elapsed from the onset of the attack.

This seems to apply to many forms of acute nephritis. A sudden onset, without warning, except by headaches, is the usual picture of this disease. It is often overlooked, because at first the symptoms are all out of proportion to the urinary findings and may lead one to think that the kidneys are not the cause of the disturbance. However, it should not be forgotten that it may be two or three weeks before much microscopical evidence can be elicited.

There is no disease capable of causing any more malignant form of nephritis than syphilis, and it is usually a more serious complication than the nephritis of diphtheria, pneumonia or erysipelas. There may be a slight nephritis that may damage the kidneys to such an extent that the influence of some fresh infection may cause a most serious form of kidney inflammation. The condition must be watched for a long time, inasmuch as it frequently leads to a chronic form.

Treatment of the Early Form of the Malady

A milk diet is indispensable, although in the mild cases cereals may be added. My patient took three quarts of milk daily for five weeks, and he improved constantly. Arsenic trioxide, 1-100 grain every three hours, is used in the acute stage, while later mercury, in the form of the protoiodide, is given in daily doses of 1-2 to 1 grain. The arsenic preparations seem to act better in the acute and malignant forms than does mercury. Stokes* finds salvarsan or arsenobenzol to be the quickest method of treating syphilitic nephritis. It does not irritate the kidneys, unless given in too large dosage. He gives the salvarsan in doses of 0.15 to 0.2 Gram, later cautiously increasing to 0.4 Gram. However, he finds it advisable to follow with the use of mercury, in order to obtain lasting results.

As improvement takes place, one might be tempted to add more to the diet; still, usually when the disease improves, it is well to continue this strict diet for a sufficient length of time to allow a complete subsidence of kidney inflammation. If the condition recurs, it always is more difficult to overcome it.

While the early nephritis usually comes on after the disappearance of the secondary symptoms, the tertiary form develops several years after the primary lesion, and is, in fact, a gummatous condition of the kidneys resembling amyloid degeneration. The following case illustrates this form of syphilitic nephritis.

A woman, now forty-six years old, had contracted syphilis twenty years ago. She now has symptoms of brightism, such as headaches, dizziness, nervousness, dyspnea, and general subcutaneous edema. The reflexes are normal, this excluding locomotor ataxia. This chronic nephritis in no way differs from common Bright's disease, the urine containing much albumin and numerous granular casts. This woman's condition resisted ordinary treatment, whereupon I prescribed daily inunctions of mercury and, internally, 10 grains of potassium iodide taken three times a day. This treatment caused a marked improvement and cleared the urine of the abnormal findings. She is continuing the use of mercury and has been free from albuminuria for one year.

Diagnosis and Treatment of the Tertiary Form

It is very difficult to diagnose tertiary syphilis of the kidneys, because the condition does not differ essentially from the ordinary glomerulonephritis. If the patient has had syphilis or shows a positive Wassermann reaction, in addition to symptoms of brightism, we may assume that the nephritis is specific. The simultaneous appearance of gummata of the skin, tertiary ulcerations or osteoperiostitis would point to an accompanying nephritis.

Mercury is to be preferred to potassium iodide. Salvarsan, administered by intravenous injection, is to be recommended, the same as in the acute type. Obviously, it is necessary to watch the action of all remedies prescribed, because the renal tissue is weakened. Consequently, to bring about a cure, the treatment must, from time to time, be stopped and then again resumed.

Relapses are very frequent; hence, a careful study of the urinary sediment must be persisted in sedulously, in order to detect any deleterious action of the remedies, as evidenced by renal irritation. The diet should be the same as that prescribed in ordinary nephritis. It is very difficult to induce a patient to continue treatment after he feels somewhat improved, however, the danger of a chronic glomerulonephritis must be explained to him.

*Stokes, J. H.: *Journal of the American Medical Association*, 1916, LXVI, 1191.

Lobeline Sulphate

A Report of Some Animal Experiments

By G. R. BROWNE, D. V. M., Chicago, Illinois

THIS drug is the salt of the alkaloid of *lobelia inflata*, the fluid extract of which is valued so highly by the Eclectics in many pathological conditions, especially those affecting the respiratory tract.

The history of *lobelia inflata* is closely connected with the name of Dr. Samuel Thomson, the founder of the Thomsonian system of medicine, and it was brought before the public prominently during the numerous trials of the Thomsonians for murder and manslaughter.

The splendid results obtained by the use of lobeline sulphate in the conditions in which it is indicated, and the many conflicts of opinions regarding the value of the fluid extract of *lobelia*, impelled the writer, in conjunction with Dr. C. A. Zell, of The Abbott Laboratories, to conduct a series of animal and clinical experiments with lobeline sulphate to establish in our minds its toxic dose and its apparent action. In our previous experience, lobeline sulphate had not exhibited any of the toxic qualities of the fluid extract found objectionable by many authors.

Dr. Finley Ellingwood, in his recent work on "Materia Medica and Therapeutics," takes the stand that *lobelia*, used hypodermically, is not a nauseant expectorant and, while a sedative and antispasmodic, still exerts a stimulant action upon the patient and is not narcotic in the same sense that opium is.

Other authors, such as Cushny and Butler, are chary in recommending its use in any condition other than spasmodic asthma, claiming that the extreme nausea and depression resulting from its use, even in medicinal doses, render it undesirable and dangerous.

Sidney Ringer says that this drug is erroneously thought to be dangerous.

Hare, in his "Practical Therapeutics," says that *lobelia* is "equally praised and condemned."

Some careful experiments with lobeline were conducted by Edmunds to determine its physiological action. Some of his findings were most interesting, particularly as he clearly demonstrated that lobeline acts most powerfully upon the renal, vagus, and superior cervical ganglia, and that its action upon the inferior and mesenteric ganglia was deferred and not complete.

Edmunds also states that it was impossible for him to stop the heart's action with muscarine, after an injection of lobeline had been given, and that lobeline would start the heart action after it had been stopped by muscarine.

These findings should assist us materially in the application of lobeline sulphate to conditions in practice.

Indications for Lobeline Sulphate

Lobeline sulphate appears to be especially indicated in the following conditions, and in some of them it has proven to be almost indispensable; for examples in the tetanus and azoturia of equines. (Azoturia of horses is similar to paroxysmal hemoglobinuria of the human.) Lobeline sulphate should certainly prove of great value as a nonnarcotic sedative in cases of renal calculi, renal colic or hyperemia.

This drug should also be given a trial in cases of spasmodic asthma, spasmodic laryngitis, whooping-cough, hysteria, and hysterical convulsions, and in eclampsia.

As I have stated, my observations were of a purely clinical character, and made on animals like the horse and dog.

In cases of azoturia in the horse, where the animal was almost uncontrollable, I have seen 1-10 grain of lobeline sulphate render the animal perfectly tractable and apparently free from pain, bystanders commenting audibly on the "powerful dope" that the veterinarian had administered.

My first experiments with this drug, aside from using it in tetanus and azoturia, were conducted with the object of determining its action, if any, in cases of pulmonary emphysema or "heaves" of horses, and successive injections of lobeline sulphate were given with no apparent effect. The dosage ranged from 1-20 to 1-4 grain, 1-10 grain being the average amount necessary to produce full effect of the drug in azoturia of equines.

Its Action on Dogs

To determine the toxic dose of lobeline sulphate, seventeen dogs, ranging in weight from 10 to 25 pounds, were injected with lobeline sulphate.

Group 1.—Four dogs were injected with 1-50 grain.

Group 2.—Four dogs were injected with 1-25 grain.

Group 3.—Four dogs were injected with 1-10 grain.

Group 4.—Four dogs were injected with 1-8 grain.

Group 5.—Four dogs were injected with 1-4 grain. One dog, weighing about ten pounds, received 1-2 grain of lobeline sulphate.

In from one-half to one minute after the injection, the respirations became greatly increased in rapidity, but observations at this point were interrupted by thorough vomiting, followed by defecation, this occurring in from one to two minutes after the injection. The attendant reported successive full evacuations for three to four hours following injections.

The heart, after a preliminary quickening, was slightly slowed, the pulse being full, soft, and regular. In a total of thirty-six animals injected, without exception every animal promptly vomited and then in all but four cases defecated.

No animal showed any depressant or narcotic effect from this drug, except that habitual "barkers" did not exercise this function for a few hours.

As the ten-pound dog did not appear to be adversely affected by the injection of 1-2 grain of lobeline, we gave up expectation of recording any toxic effects.

Salivation was evidenced in the majority of the animals, and assuming that secretions were stimulated throughout the body, I believe that the evacuations were attributable to this action of the drug. The relaxation of the intestinal walls, together with abdominal pressure during vomiting, undoubtedly was responsible for the early evacuations.

Effect Upon Strychnine Poisoning

Desiring to test the ability of lobeline sulphate to control the convulsions of strychnine poisoning, I carried out a number of observations, in association with Doctor Zell.

Dog No. 1, weight about 20 pounds, received 1 grain of strychnine by the mouth; in twenty minutes the first symptoms of poisoning were observed, and then 1-4 grain of lobeline sulphate was given hypodermically, but the convulsions had set in to such a degree that they were uncontrollable, and the animal died in the usual manner.

The next dog, about the same size, was given 1 grain by the mouth, and, about eighteen minutes after administration, 1-4 grain of lobeline sulphate was exhibited. symptoms of strychnine poisoning were

evidenced almost immediately. Death followed within two minutes.

Dog No. 3 received 1-2 grain of strychnine. We waited ten minutes and then gave 1-4 grain lobeline sulphate. Prompt vomiting occurred and the dog did not exhibit evidences of poisoning.

Dog No. 4 received lobeline first, and, after vomiting had occurred, 1-2 grain of strychnine was given. Absolutely no signs of strychnine poisoning developed for two hours and ten minutes; then he had the first convulsion, and died in about ten minutes. Heart action continued irregularly after respiration had ceased.

Dog No. 5 was given lobeline sulphate first and strychnine after vomiting; he showed no signs of poisoning.

Where strychnine is absorbed slowly, that is, when death does not follow within one to two minutes after the first convulsion, as was the case in Nos. 1 and 2, the lobeline exerts a remarkably antagonistic effect, producing emesis and thus emptying the stomach of unabsorbed poison. It relaxes the muscles wonderfully, but just what its exact counter-acting effect is we are unprepared to state, but intend to continue our experiments further. We do know that 1-20 grain of strychnine produced death in two other dogs of the same size.

Summary

Lobeline sulphate is a direct or systemic emetic, given hypodermically to dogs, in from 1-30- to 1-4-grain dosage, no narcotic action being exhibited, rather a stimulative action, especially to the secretory glands. Absolutely no depression follows its administration in dogs.

It should be used in conditions where a general relaxant is desired, and particularly when pain is evidenced through the renal, superior cervical, and vagus reflexes.

[Some experiments made on the human subject show that in 1-100-grain dosage lobeline sulphate will cause slight nausea, and vomiting and bowel-evacuation when 1-50 grain is given. There was no depression following its use, and the heart's action was excellent throughout. Respiratory action was increased. Nausea appeared within two to five minutes. Doctor Browne's suggestion that the remedy should prove of value in renal and hepatic colics, asthma, and other spasmodic conditions, is excellent. We shall develop this subject in future issues of this journal.—Ed.]

What Others are Doing

THE ADVENT OF PARALYSIS IN ACUTE ANTERIOR POLIOMYELITIS

The monograph entitled "A Clinical Study of Acute Poliomyelitis" that has been prepared by Francis W. Peabody, George Draper, and A. R. Dochez, and issued by The Rockefeller Institute for Medical Research, under date of June 24, 1912, in many respects is a classic. It contains the most careful description of the natural history of this disease, its symptoms, complications, and character that has ever been published, at least in our opinion, and because of the interest in this subject at the present time we are presenting several brief abstracts from this monograph, which may be read in connection with the editorial appearing on page 640 of this issue and which gives a general review of the disease. In the first of these extracts, the authors describe the advent of the paralysis in the following language:

"A curious thing is, the unheralded advent of the paralysis. One may observe in the morning that a child moves its arms easily; a few hours later, on going to the bedside for some other purpose, the patient is found lying quietly as before, but when it rolls over, one arm falls back limp. The child seems unaware of the loss of power. In a few cases, patients have complained of pain in an extremity shortly before paralysis supervened. While the presence of paralysis is easily detected in older children, it is sometimes most difficult to find in infants. In any case, the most satisfactory method of beginning a search for muscular weakness is, to sit down by the bed and watch the child for many minutes. Of course, in some instances, the patient lies a limp, inert form, the subtle expression of vitality gone. In such cases, a glance is enough to determine the presence of paralysis, and more careful examination is needed only to learn its extent.

"If the pain or tenderness is not too intense, gentle handling of the extremities soon discloses the muscle groups that still have some power left in them. Older children will usually move the arms or legs upon suggestions calculated to demonstrate faulty

motion. Often, however, when there is great pain, it is hard to tell whether the children will not or can not move. In such cases, the physician must decide whether the demonstration of the presence of a paralysis is of sufficient importance to justify his causing the patient the pain involved in such demonstration. In such cases, the only way in which the presence of a paralysis may be accurately determined is, by pricking the skin and determining whether or not the child draws the part away from the source of discomfort. For instance, if it be suspected that the deltoid is weak, the skin should be pricked on the posterior and inner aspect of the arm, when, if the deltoid is not involved, the arm will be drawn outward and upward.

"The extremity should be so placed at first that the suspected muscle will have to work against gravity; but it is surprising how quickly and skilfully the smallest infants turn and twist to make use of this natural force. Occasionally the presence of tone in a muscle can be shown by putting it suddenly on the stretch. For example, if the flexed forearm be sharply drawn down by the examiner toward extension, definite resistance will be noticed when the biceps is normal.

"There is one group of cases in which it is almost impossible to locate definitely the paralysis. These patients present all the other features of the disease, but no paralyzed muscles can be found. If such children be stood on their feet, however, they suddenly buckle at the hips and fall in a heap on the floor. Probably weakness of the gluteal muscles in some cases is accountable for this form; in others, weakness of the quadriceps.

"Mueller states that paralysis of the intrinsic back-muscles is of frequent occurrence. This is a difficult palsy to demonstrate in the acute stage of the disease; for, in the great majority of instances, the children will not or can not sit up at this time. In some cases, pain makes the patient antagonize the effort to sit up; in others, there is, apparently, such general weakness of trunk and neck that the head drops and the spine bends like a reed. Yet, in a week or two these children may b

sitting up straight in bed and playing actively."

ABORTIVE TYPES OF POLIOMYELITIS

The term "abortive" was applied by Wickman to cases of poliomyelitis in which paralysis does not develop. ("Beitraege zur Kenntniss der Heine-Medinschen Krankheit." Berlin, 1907.—"Die Akute Poliomyelitis, bzw., Heine-Medinsche Krankheit." Berlin, 1911.) According to his experience, these abortive types represented from 25 to 56 percent of the total incidence of the disease, and he is convinced, as is Mueller, likewise, that these figures are too low. They are agreed that the unparalyzed cases of poliomyelitis considerably outnumber the paralyzed. They believe that in cases of this type the general infectious disease-process is present, with possible involvement of the lymphoid tissues, spleen, liver, and other tissues, but without the classic symptom that gives the disease its name.

Wickman has attempted to classify this abortive type and describes four groups, as follows: (1) Cases running the course of a general infection; (2) cases in which meningeal irritation is marked; (3) cases in which pain is very marked and which are likely to simulate influenza; and (4) cases presenting gastrointestinal disturbances. Such a classification is an artificial one, but from a clinical point of view serves as well as any.

Peabody, Draper, and Dochez, whose brochure was cited in the preceding article, have had only a limited experience with cases that do not develop paralysis. Many times, however, they observed some degree of muscular weakness, which sometimes was transient, although not always so. In two instances, the children developed weakness about the pelvis, which made it difficult for them to stand. In another case, which they report in detail, the history of exposure, clinical picture, blood and spinal-fluid examination, and, finally, animal-tests for the virus all supported the diagnosis of poliomyelitis without paralysis. In another case, occurring in a child of three years, the principal symptoms observed were, malaise, anorexia, and drowsiness, all occurring a day or two before the child's brother became ill with a fatal attack. In still other examples of this type, this transitory muscular weakness was one of the prominent symptoms.

Of the other clinical features, it may be said that nervous irritability and drowsiness were the most frequent. Pain was very common,

just as in cases terminating in paralysis; and this pain might be either muscular or neuritic, it often was located in the neck or back, and frequently took the form of headache.

The disease which the abortive cases seemed most frequently to resemble was influenza. For this reason, attacks of a disease simulating influenza and occurring during the summer, especially in the neighborhood of a patient who has become paralyzed, should be viewed with suspicion and subjected to quarantine.

REMARKABLE MENTAL CHANGE OCCURRING IN FATAL CASES OF POLIOMYELITIS

The most remarkable feature of fatal cases of poliomyelitis, say Peabody, Draper, and Dochez, in their clinical study of poliomyelitis (see the monograph of the Rockefeller Institute for Medical Research, June 24, 1912, p. 71) is, the condition of the sensorium. To quote:

"The most remarkable feature of our fatal cases was the condition of the sensorium. Three of our patients were so young that observations on their mental state were not of value, but four, between the ages of 3 1-2 and 10 years, showed a very interesting and comparatively constant picture. We have already called attention to the apparent absence of toxic effects in many cases of poliomyelitis, and this is nowhere more strikingly illustrated than in these severe, fatal cases.

"During the prodromata and often during the acute onset of the early paralysis, the children may be sleepy and drowsy in the manner which is characteristic of so many cases. This condition is, however, apt to be mild and transient and it is often soon replaced by a clear mental state. With the onset of respiratory difficulty, it seems almost as if the children were suddenly awakened and made to realize the struggle before them.

"Little children seem to age in a few hours. One sees a heedless, careless, sleepy baby become all at once wide-awake, high-strung, alert to the matter in hand—and this is, breathing. The whole mind and body appear to be concentrated on respiration. Respiration becomes an active, voluntary process, and every breath represents hard work. The child gives the impression of one who has a fight on his hands and who knows perfectly how to manage it. All it wants is, to be left alone, not to be interfered with, to be allowed

to carry out its fight on its own lines. Instinctively it husband its strength, refuses food, and speaks, when speech is necessary, quietly and with few words.

"One little child of four, so helplessly paralyzed that she was unable to move but with a mind that seemed to take in the whole situation, said to the nurse clearly, but rather abruptly, between her hard-taken breaths: 'My arm hurts'; 'turn me over'; 'scratch my nostril'; and then, when the doctor approached: 'Let me alone, doctor!'; 'don't touch my chest.'

"Pressure on the chest, tight neckbands, anything that obstructs easy respiration is immediately resented. The child demands constant attention, is irritated, unless everything is done exactly as it wishes it, and often shows an instinctive appreciation for some especially efficient nurse. It is nervous, fearful, and dreads being left alone.

"The mouth becomes filled with frothy saliva, which the child is unable to swallow, so it collects it between its lips and waits for the nurse to wipe it away. It likes to have its lips wet with cold water, but rarely attempts to take it into the mouth, for it knows it cannot swallow it.

"During the whole course it is remarkable that cyanosis is absent. There is a little bluish tinging of the lips and tongue, but much more distinctive is the pallor, which is sometimes striking. Sweating is profuse. Then, as respiration gets weaker, the mind becomes dull, and with the occasional return of a lucid interval it gradually drifts into unconsciousness. An hour or more later, respiration ceases."

This peculiar mental state is much less noticeable in small babies, who are more likely to be drowsy most of the time until the end comes, but in older children, this mental alertness is characteristic. The authors say that this has been so strongly fixed in their minds that they prefer to have a child brought to them in a stuporous condition rather than with a mind whose nervous acuity seems due to a perception of impending danger.

PAIN AS A SYMPTOM OF POLIOMYELITIS

Quoting again from the Rockefeller Institute monograph referred to in the preceding article, the authors (Peabody, Draper and Dochez) give the following graphic description of the pain, which, as they state, is a constant feature of the acute stage in every attack of poliomyelitis:

"In general, three types are found: spontaneous pain, pain caused by manipulation, and tenderness of the muscles and nerve-trunks to pressure. These are not all equally common. Pain caused by passive motion is most frequent and seems to depend primarily upon anterior flexion of the spine. The clearest demonstration of this fact occurs when a child's trunk is bent ventrally, shoulders toward hips, to throw the spinous processes apart in preparation for lumbar puncture. Such a procedure brings about immediately a marked degree of anterior spinal flexion and is strenuously objected to by the patient. The entrance of the needle is often unnoticed.

"There are several other manipulations, such as the test for stiff neck and Kernig's sign, which necessitate more or less bending of the spine anteriorly. The ingenious and active efforts of the children to thwart any motion which involves the least bending forward of the spine or, indeed, diminishes a slight protective opisthotonos, have been very striking, so much so that we have been led to believe that the stiff neck of poliomyelitis differed from that of meningitis in being voluntary rather than reflex. With the Kernig's sign also, the voluntary element, where retained muscle-power permits, is even more definite. If flaccid paralysis of a lower extremity makes resistance impossible, there is always complaint of pain when extension is carried until the buttocks begin to rotate forward and upward; but when the muscles have power to act, resistance to hyperextension is definitely voluntary and has not the feeling of reflex spasm.

"This painful bending of the spine is also often responsible for the unwillingness of children to begin sitting up in bed. The symptom occasionally persists for several weeks and, in these instances, is the only thing that keeps a happy, healthy-looking child flat in bed. It is interesting to watch these patients on their backs, playing cheerfully and actively with arms and hands, suddenly look glum, apprehensive, and suspicious when a move is made toward them that may mean raising their shoulders and heads from the pillow. Often early improvement in the paralysis is masked by this painful symptom or the fear of it.

"Spontaneous pain sometimes occurs in poliomyelitis. This is much less frequent than pain on passive motion. Usually it follows the course of the nerves like a true neuritis. It may be very severe. Young children can not definitely recognize limitation of pain to the course of a nerve, and

they complain, therefore, of distress in the whole leg or foot. Such pain may perhaps be more often present than is generally supposed, for it frequently requires much urging and even sharp prodding to make a child move an extremity which seems to be paralyzed, when in reality the muscles have power but are painful.

"In some cases, a child will cry out with pain, which seems to come in stabs and paroxysms. The duration of pain of this sort varies like most of the symptoms of the disease. As a rule, it rarely lasts more than a week. In the case of one adult, the pain was so severe that morphine was necessary on several occasions. With young children, we have used codeine.

"The third painful feature of acute poliomyelitis, is the tenderness of muscles to pressure. Sometimes merely a touch suffices, but usually the muscles must be seized between thumb and fingers and a little pressure made to produce pain. There is little doubt that this tenderness is in the muscles and is not a hyperesthesia of the skin; for, rubbing the skin without pressing on the underlying muscles or even pinching causes no painful sensation. A few cases also have definite tenderness over the nerve-trunks, like a neuritis. In one adult with complete flaccid paralysis of the right lower extremity, who had also great spontaneous pain, pressure over the anterior crural trunk caused intense suffering. Headache is more a symptom of onset than of the acute stage."

DETOXICATING EFFECT OF FAT UPON STRYCHNINE

That fat (lard) diminishes or even destroys the toxic action of strychnine, was first reported in medical print (so far as the Abstractor is aware—so far as this country is concerned) in *The Medical World*, at some time antedating the year 1899, the anonymous correspondent having saved a man's life by feeding him nearly a pound of melted lard. The doctor had read of this antidote also in *The Medical World* (file not available). Then another reader wrote that as long ago as in 1877 his preceptor had had a similar experience, giving one pint of lard. And thereupon a North Carolina practitioner wrote to the journal named that among the piney woods ruralists of those regions it was common practice to feed their dogs melted lard when poisoned with strychnine. This antidotal property was discovered, he explained, soon after the civil war, when the negroes began

to keep dogs, and, these killing the sheep, were thrown strychnine concealed in lard or bacon. The fat, the planters discovered, rendered the strychnine ineffective. These data may be found grouped in detail in *The Western Druggist* for 1899, and are very interesting. For a long time these facts were received with doubt in journalistic circles, though eventually accepted.

Now P. Paulucci, of the Physiologic Institute at Rome, has taken up this problem systematically and reported the results of his animal-experiments (*Arch. d. Farm. Sper.*, 1915; cf. *Ther. Monatsh.*, 1915, p. 408).

The author has established the fact that all fats and fat-like substances act to reduce the saponification of strychnine, whether introduced subcutaneously or applied directly to the motor centers of the cerebral cortex or the spinal cord, irrespective of whether the mixture of the alkaloid and the fat contains any water or not. The fat causes an absolute reduction of the toxicity; toxic doses no longer give rise to toxic symptoms and lethal doses do not kill; the period of latency is materially extended. Relatively, the greatest detoxicating influence is exerted by mineral fats (petrolatum), while butter and cerebral substance (lecithin) are lowest in the scale.

DISINFECTION OF THE NASOPHARYNX OF MENINGOCOCCUS CARRIERS BY CHLORAMINE

Experiments were undertaken recently, in the Central Cerebrospinal Laboratory of the Royal Army Medical College, London, for the purpose of determining whether persons carrying the meningococcus in the nasopharynx can be freed of that microorganism by causing them to inhale the air of a room saturated with vapor containing a disinfectant. The disinfectant used in these experiments was chloramine (known in America as chlorazene). The results of the investigation are reported by Lieutenant-Colonel M. H. Gordon, in *The British Medical Journal*, for July 1, and show that

1. The air of an ordinary room, when brought to the point of saturation by means of a steam-spray containing 2 percent of chloramine, acquires pronounced bactericidal properties for the staphylococcus epidermis.

2. Such air can be tolerated by human beings for periods varying from six to twenty minutes without marked discomfort and without harm.

3. When inhaled through the nose, this air succeeds temporarily in destroying the meningococcus in the nasopharynx of carriers. Its sphere of usefulness in this and other respects is being more closely investigated.

We intend to publish a more detailed report of these interesting experiments, in *CLINICAL MEDICINE* for September. See the editorial relative to this antiseptic, on page 647, this issue.

INJECTION TREATMENT OF NEURITIS WITH HOT SALINE SOLUTION

Some years ago, injections of alcohol into the nerve-tissue were recommended for intractable neuritis, for example in sciatica and in tic douloureux. In an effort to determine whether alcoholic injections into the nerve-tissue are innocuous or not, Dr. Alfred Gordon found that these injections may give rise to decided degenerative changes. He has, therefore, abandoned the alcoholic injections in favor of saline solution of high temperature (*Ther. Gaz.*, 1916, June, p. 392), from which latter he has obtained highly satisfactory results. These injections were repeated at intervals varying from four days to two weeks.

While the time is too short to claim permanent cures, the relief experienced by his patients has been so decided and continuous, that the author recommends this method in the most emphatic manner. Saline solutions of high temperature give better and more lasting results than when the fluid is tepid or cold.

THE TRANSMISSION OF DISEASE BY SPUTUM

The campaign against tuberculosis not only has been effective against that disease, but it has also been of service, in a general sense, in promoting an increased attention to general hygiene, and therefore in a lessening of the modes by which infectious diseases are transmitted. Yet, it must be admitted that even the foremost prophylactic precept, that of the perniciousness of spitting, still is neglected in many places, and that its meaning by no means as yet is fully understood. As Dr. Wallace A. Manheimer (*Med. Rec.*, 1916, June 3, p. 997) points out, the delicatessen-store clerk who moistens his finger with saliva to pick up the piece of paper in which to wrap the butter is spitting on the paper and, therefore, on the butter; the street-car conductor who wets his fingers and then gives

you a transfer ticket is spitting on the paper slip and, therefore, on your hand.

The common habit of moistening the gum of postage stamps and envelopes with saliva, the author continues, has suggested the possibility of the transmission of disease through letters infected in that way. The evident contamination of letters when they are sealed and stamped and the frequent spreading of the saliva by the fingers and hand to other parts of the envelope suggest the importance of determining what the danger from this source really is. Letters are handled by the carriers and postal clerks almost immediately after their being mailed, and they are delivered to the addresses sometimes within a few hours, very often within but twelve or eighteen hours after being mailed.

Immediate contact of the hands with saliva and the subsequent introduction of the fingers into the mouth represents a much more dangerous mode of infection than, for example, the inhalation of dried sputum. The discharges from the mouth are responsible for almost as many diseases as are contracted from all other sources put together. Tubercle-bacilli transmitted in wet saliva are far more virulent than when dry and blown in the air. Wet or fresh sputum, when we consider the frequency with which it is spread about, represents the most dangerous material discharged by human beings. The pneumococcus, the diphtheria-bacillus, the germs of measles, scarlet-fever, smallpox, whooping-cough, epidemic meningitis, mumps, influenza, common colds, and other infections are more frequently transmitted through fresh sputum than in any other way. The author named refers to a recent case of syphilis contracted through counting paper money with fingers moistened with saliva, as strongly emphasizing the caution which should be observed from this source of infection.

All these things are so self-evident that they appear to be ludicrously simple. And, yet, even physicians offend against the most ordinary laws, not only of hygiene, but of prophylaxis; as witness the frequency with which one can see physicians moistening their fingers with their tongues to facilitate the turning of the leaves of a book. The present writer has watched one of the foremost tuberculosis-physicians of our country do this same thing time and time again. True, he is not tuberculous and does not injure anybody; but it is, withal, a filthy habit and should be eschewed, if for no other than esthetic reasons.

It must be admitted that as physicians, who are supposed to be the teachers of the people in matters of health, we are not always consistent in our practicing what we preach, and it may be well to consider the warning voiced by Doctor Manheimer, in order to narrow still further the many ways in which infections may be transmitted.

PARATYPHOID FEVER COMMON IN EUROPE

One of the most interesting results following the virtually universal employment of prophylactic typhoid vaccination among the European armies has been the comparative increase in the number of cases of paratyphoid fever. This is strikingly shown by W. H. Willcox, in a paper published in *The Lancet* of February 26, in which he gives the results of a large number of cases treated in the Dardanelles area.

Altogether 150 cases were studied. Of these, 13 1-2 percent were those of typhoid fever, and 86 1-2 percent those of paratyphoid fever. This increasing proportion of paratyphoid fever and the enormous shrinkage in the number of true typhoid fever corresponds closely to the experience in the French army, as already reported in these pages.

The mortality from paratyphoid fever, as reported by Willcox, was found to be between 3 and 5 percent. He believes that this disease, whether it be caused by the "A" or the "B" organism, is more serious than is usually supposed. He urges early diagnosis, the recognition of carriers as a problem, and the adoption of prophylactic measures. At present, the protective inoculation against typhoid fever includes at the same time protection against paratyphoid "A" and "B," a mixed vaccine being employed for this purpose.

PITUITARY GLAND IN THERAPY

Pituitary gland, in one of its various forms or derivatives, is proving an efficacious agent in various ways and is finding extensive application, while, basing upon theoretical speculations, it is being widely experimented with for many pathologic conditions, but the reports upon which are more or less conflicting. Success with this substance is based largely upon its power to raise the arterial pressure (with diuresis as one consequence) and to stimulate the enteric musculature. Upon this subject R. Hofstaetter (quoted by *Muench. Med. Woch.*, 1915) has published an exhaustive collective thesis,

and the following conditions are enumerated as among those falling into the categories named and in which it is found useful:

Collapse, postoperative shock, acute infectious diseases exhibiting marked recession of blood pressure, hypophysis (the symptom-complex as constructed by Martinei), paroxysmal tachycardia, myasthenia, eclampsia, puerperal and postoperative retention of urine and postoperative intestinal paralysis. Furthermore, since injections of pituitrin have been observed to induce a condition of somnolency, it is recommended for insomnia and neurasthenic conditions. In combination with adrenalin ("asthmalysin"), pituitrin controls bronchial asthma. Osteomalacia and rickets yield to this therapy. Some have observed increased libido following its use, employing it in impotency, while others believe it to allay sexual irritation.

Other conditions for which pituitary gland has been advised and in part tried are: acromegaly, dystrophia, adipositas genitalis, multiple glandular sclerosis, Dercum's disease, exophthalmos, myxedema, goiter, sclerodermia, Addison's disease, tetany, myasthenia, tachycardia, chondrodystrophia, ateliosis, micromelia; while the following come under the head of gynecology, namely, uterine hemorrhage, hypoplasia, amenorrhea, climacteric and post-castration disorders, vomiting and toxicoses of pregnancy, deficient lactation.

EFFECT OF PITUITARY EXTRACT UPON THE ARTERIAL LUMEN

In the same communication, Fischel (*loc. cit.*) tells of experiments according to which small doses of pituitary extract exert a vasoconstrictive action; this, in opposition to the results reported by previous investigators, who observed the exact opposite action. The latter, though, had employed appreciably larger amounts.

FOREIGN BODIES IN THE ESOPHAGUS

Since, in 1897, Professor Killian, of Freiburg, demonstrated the feasibility of passing straight and rigid tubes through the glottis into the tracheobronchial tree, by reason of its great elasticity, and since he removed, in the same year, a foreign body from the bronchus of a living child and thus demonstrated the usefulness of the procedure, Killian himself has extended his method of direct examination and therapeutic procedure to the esophagus and in 1899 established

esophagoscopy as a practical method. Since then, Killian's method has been improved and has demonstrated its value for the removal of foreign bodies from the food- and air-passages, so that during the past few years it has completely revolutionized our methods of treatment.

Improvements in instrumentarium and technic not only have greatly minimized the dangers, but have enormously reduced the death-rate in cases treated in this manner. Thus, for example, in the case of foreign bodies in the bronchi, when left to themselves, the mortality used to be 58 percent; now, thanks to the direct method, if resorted to early, the death-rate is practically *nil*. Cases, however, are still reported where death has occurred from the accidental swallowing of a tooth-plate or other foreign body, after ineffectual attempts at extraction through the mouth, followed in some instances by the external operation of esophagotomy or gastrotomy.

The blind use of bougies or probangs has also been the cause of many fatalities. The operation of esophagotomy by no means is free from danger, for, the risk of opening the cellular planes in the neck cannot be ignored. Statistics show that esophagotomy for removing foreign bodies is followed by a mortality of from 12 to 20 percent; which is to say, nearly ten times as great as that following extraction by esophagoscopy.

A few years ago, it was held that the extraction of foreign bodies with sharp edges and hooks—dental plates, for instance—is dangerous and that it may lead to fatal injuries of the gullet and adjoining parts. Here, esophagotomy or gastrotomy was held to be indicated. At present, recourse to external surgery is one rarely considered justifiable, unless the foreign body has already escaped through the esophageal wall. In all other cases, no matter how large the foreign body, if it has gone in by the natural passage, it can be brought out by the same route. When swallowed, it assumes the position which offers the least resistance, and it remains for the endoscopist to assist its return journey under conditions that will offer the least resistance. In accordance with this very sensible view, successful attempts have been made in recent years to improve instruments and the technic for the removal of foreign bodies from the esophagus and from the bronchi, in a degree that was not believed possible even a few years ago.

In an interesting communication to *The Lancet* (1916, p. 992), Dr. Irwin Moore,

surgeon to The Throat Hospital, at London, describes several new instruments that have been designed for the purpose under consideration. For a full understanding of his instructive paper, it would be necessary to reproduce his illustrations, which is not feasible, and we strongly advise those who may be interested in this procedure to study Moore's original paper, the journal being on file in most medical libraries.

GOITER BENEFITED BY INTESTINAL DISINFECTION

An interesting observation has been communicated by F. Messerli, of Lausanne (*Rev. med. d. l. Suisse rom.*; cf. *Ther. Monatsh.*, 1915, p. 413), regarding the influence of long-continued disinfection of the intestines upon goiter. The subjects were military persons, and they were variously and interchangeably subjected to courses of salol (3.0), thymol (0.1 twice daily), benzonaphthol (0.5 thrice daily), creosote (3 pills), and mechanical cleaning out by means of laxative pills. The goiters, the author asserts, invariably grew less in size.

Doesn't that suggest the value of the sulphocarbolates in these cases? It reminds us that some four years ago McCarrison (see *Lancet*, Feb. 10, 1912) ascribed goiter to the presence of a living microbic organism in the intestine.

TREATMENT OF SALVARSAN TOXEMIA

In view of the frequency of toxic symptoms following the administration of successive doses of salvarsan, Willcox and Webster (*Brit. Med. Jour.*, Apr. 1, p. 473) strongly advise that an interval of four weeks elapse between the administrations of full doses of this drug. With shorter intervals, there is risk of cumulative action, owing to the continued presence of some of the arsenical preparation in the abdominal viscera.

Prophylactic treatment, the authors declare, is most important. An aperient should be given the night before the remedy is injected, and alcohol and tobacco should be avoided for twenty-four hours before and after the administration. The patient should remain in bed on the day in which the drug is given, and for twenty-four hours afterward.

Slight symptoms, such as nausea, slight pyrexia, headache, and so on, call for nothing but the simplest remedies. Should the temperature remain above normal for more than a few hours, the patient should remain

bed until it has returned to normal and remained there for at least twenty-four hours.

It is wise to diet patients carefully until all symptoms have disappeared. The diet should be light, as, for example, milk, milk puddings, fruit, vegetables, toast, bread, and the like. Meat, meat-extracts, soups, and also alcohol are to be avoided. Constipation must be prevented by means of suitable aperients.

When serious symptoms occur, such as collapse, twitchings, stupor, delirium or coma, an intravenous injection of physiologic saline solution (2 to 3 pints) should be given and repeated if necessary. These saline injections may also be made subcutaneously. Rectal injections of physiologic salt-solution, containing also 3 drams of sodium bicarbonate to the pint, should be given every eight hours. When the blood pressure is not low, venesection should be done and about 10 ounces of blood withdrawn, then infusing into the vein an equal volume of plain physiologic solution.

If the patient becomes comatose, it is important to continue nourishment by mouth. For example, 15 ounces of peptonized or citrated milk may be introduced through a stomach- (or nasal) tube every six hours. For collapse, strychnine, 1-40 grain, may be given hypodermically every four hours, while oxygen or oxygen passed through alcohol may be administered, with advantage.

In the early onset of toxic symptoms, the following mixture is to be given every three hours:

Sodium citrate.....	dr. 1
Sodium bicarbonate.....	drs. 2
Potassium citrate.....	drs. 2
Caffeine citrate.....	grs. 3
Syrup of orange.....	dr. 1
Water, enough to make.....	oz. 1

TETANUS PROPHYLAXIS IN THE PRESENT WAR

While, of course, there is a difference of opinion among European surgeons as to the value of tetanus-antitoxin as a prophylactic, the statistics thus far available have certainly seemed to demonstrate that it is an agent of the utmost value. The first report upon it is that made by Hufnagel in the conference of army surgeons in Namur in November, 1914. He reported 2193 wounded treated, and among these 27 cases of tetanus. As soon as the wounded soldiers were being given prophylactic injections of tetanus-antitoxin, tetanus ceased to make its appearance, although 1195 men had been treated in this manner and

many of these had received very serious wounds.

Madelung reported 63 cases of tetanus among 8145 wounded, taken care of in thirty-seven hospitals in which no prophylactic injections were employed. This is a percentage of 7.7. In one hospital where prophylactic injections were administered in selected cases, there appeared 107 cases of tetanus among 19,432 wounded, or 5.5 percent. In three other hospitals, where protective injections were given, there occurred, among 2104 wounded, only 12 cases of tetanus, or 0.57 percent—certainly a striking illustration of the efficacy of antitetanic serum in preventing tetanus when used systematically. In 20 cases of tetanus which developed despite preventive injections, it was found that in not one of these had the serum been given on the day on which the wound was received, and in half of the cases the injection was not administered until six days had elapsed.

Goldscheider reported 4 cases of tetanus among 500 wounded, but all of these four had shown prodromal symptoms of the disease before they received the injection of the serum.

The time surely will come when every American physician will feel it a duty to be provided with tetanus-antitoxin for immediate use in the case of every patient suffering from a serious wound.

EMETINE TREATMENT OF AMEBIC DYSENTERY

In view of the probability that American soldiers may be sent to Mexico, it is most desirable that every American practitioner should know something about the therapy of amebic dysentery, since this disease is known to be exceedingly common throughout Central America and by no means uncommon in the southern part of our United States.

Emetine is an effective remedy for dysentery—a specific. Indeed, it is the one remedy that should always be resorted to in these cases; and it can be used with entire safety, without the slightest danger, if the physician exercises common sense and avoids overdosage.

We find an exceedingly interesting paper upon this subject in the "war number" (March, 1916) of *The Practitioner*, (London) this paper being written by George C. Low, of the London School of Tropical Medicine.

In this paper Doctor Low states that he usually gives 1 grain of the emetine hydro-

chloride at a dose, throwing the solution deeply under the skin or directly into some muscle, after sterilization of the surface with iodine and alcohol. When the patient is in bed, the buttock is selected as the site for injection, but any other locality will answer. He goes on to say:

"The next question that comes up for consideration is, How long should the course of emetine continue and what quantities of the drug should be given? I now generally give a course of 12 1-grain injections, one injection a day, or, two a day, to begin with. Toward the end of the course, they may be given on alternate days, if this is found to be more suitable. These figures may be taken as a general standard, but in actual practice they may have to be modified from time to time, according to circumstances and conditions that may arise. One of these is, the occurrence, in some cases, of diarrhea about the fifth or sixth day of treatment. Even though this occurs, one sometimes goes on and finishes the course, or, in other cases, one may reduce the dose or stop for a day or two and then go on again.

"The only way of determining the progress of a case of dysentery is, carefully to examine the stools daily, and for this purpose flat glass stool-dishes will be found to be useful. By this means, one sees at a glance what the consistency of the stool is, whether blood or mucus is still present, the color, and many other details.

"As a rule, the response to emetine is certain and quick. After three or four injections, an improvement will be noticed, fecal matter appearing, while the blood and mucus diminish, and finally disappear. Soon after this, unless, as in some cases, the emetine excites a diarrhea of its own, the stools become solid and formed and the patient, to all intents and purposes, is cured. Even now, however, a slight streak of blood and mucus may be detected on the solid feces, and this means that an ulcer is still open and not healed. In a few days more, this will probably have disappeared, too, and nothing further, pathologically, may be noted macroscopically.

"The stools must now be carefully searched for amebæ or their cysts: this examination being carried on, say, once or twice a week for a month or two, in order to determine whether there is to be any return. If amebæ or blood and mucus reappear, a second course of emetine will be necessary. This will not require to be so prolonged as the first and may be given in 1-grain doses every evening, until

6 grains have been taken. Some authorities recommend a second course such as this, even in the absence of any definite symptoms of relapse, and, if convenient, it might be given a month after the end of the first course.

"Larger doses than those described are, in my opinion, unnecessary, and may even be dangerous. Dale has recently described poisoning symptoms in cats and rabbits when kept for prolonged periods of time on doses analogous to those used in man, and this should be borne in mind."

THE TREATMENT OF TYPHUS-CARRIERS

In five cases in which the patients had recovered from typhus fever, the typhus-bacillus still was demonstrable in the feces. The treatment thereupon instituted by F. Kalberlah, at the military hospital of Frankfurt a. M. (*Med. Klin.*, 1915, p. 546), consisted in administering tincture of iodine (Pharm. Germ.), 7 to 15 drops in water three to five times a day one-half hour after meals, and one teaspoonful of animal-charcoal (Merck's, from blood) from three to five times a day. One of the subjects, whose urine also contained the bacilli, received, in addition, urotropine and salol.

Within eight days from starting this treatment, bacilli no longer could be detected in the excreta, although in two of them they were again found after a lapse of time; which, though, readily yielded to the same treatment. At the end of two months, careful tests failed to reveal the presence of any of the offending organisms.

As to whether this therapy applies only to fresh cases or also to older infections, experience must decide. No disagreeable local or general effects made their appearance.

SOKODU: ERUPTIVE SEPTICEMIA CAUSED BY THE BITE OF A RAT

Sokodu or sokoshio is the Japanese name of a disease that is common in China and Japan following the bite of a rat. Formerly it was thought that this disease was confined to the Orient, but recent observations have shown that it occasionally occurs in America and Europe. A description of a case of this kind is given by Fiévez in the *Paris Médical* for April 15, page 388.

Without going into details, we may mention the characteristic symptoms of this peculiar affection, as originally described by Gouget

in the *Presse Médicale* for March, 1912, and verified by Fiévez in the article in the *Paris Médical*, just referred to.

The symptoms of sokodu occur exclusively as the result of the bite of a rat. There is a long period of incubation (of several weeks), then there occur a number of attacks, these being sometimes quite numerous, separated by intervals of apparent cure, and characterized, when completely developed, by rising temperature, glandular enlargement, and a peculiar eruption resembling an exudative erythema.

In the case reported by Fiévez, there was an incubation period of fourteen days after a wound caused by a rat bite had entirely healed, then appearance of ulcerative, necrotic lesions at the seat of the bite, these being much more severe than the original wound and accompanied by decided lymphadenitis. The skin eruption in this case was papular and general, accompanied by high fever. After a week of apparent cure, a second attack occurred, this being shorter, with recrudescence of the original skin eruption. Again there was recovery, followed by a third attack, with very slight fever. The treatment was entirely symptomatic.

MORE ABOUT THE INJECTION TREATMENT OF HEMORRHOIDS

Last month we printed a brief abstract from *The Lancet* of an article by F. Swinford Edwards commenting upon a paper by Dr. Arthur S. Morley on the subject of hemorrhoids, which we had the pleasure of reproducing in our May issue. In the April 22, 1916, issue of *The Lancet* (see p. 886), Doctor Morley criticizes Doctor Edwards' criticism of his paper.

In this latest contribution Morley says that he invariably uses the speculum in every rectal case, because *only through its use is it possible to diagnose accurately many rectal lesions*. There are numerous cases of hemorrhoids in which bleeding, pruritus and other troublesome symptoms exist but in which the piles rarely or never prolapse, and cannot be made to do so. In order to diagnose them, they must be seen, and the only way to see them is to pass a speculum. Naturally, the only way to inject these piles is through a speculum. In this respect he disagrees absolutely with Edwards, who only injects such piles as can be protruded. This restriction, Morley declares, "deprives by far the larger class of patients of the benefits of the injection method and reserves it for the

worst cases, in which its success is least certain."

Doctor Morley says that he rarely needs any assistance, though he always uses a speculum. He has never had any trouble with hemorrhage, which never exceeds a few drops. It can be readily soaked up with a single swab. He finds it quite easy to inject the fluid into the center of each pile or into its base and he can easily reach high-lying piles by means of the speculum—piles which, though large, are unlikely to come down outside the anus.

THE TREATMENT OF GRIP

There are many remedies for the treatment of grip, but, of course, there is no specific. However, Dr. Beverley Robinson, of New York, in a paper printed in *The New York Medical Journal* for February 12, praises highly the following combination, dispensed in capsules:

Ammonium salicylate.....grs. 3
Caffeine.....gr. 1-4

Two such capsules (or double the amount may be put into one large capsule) should be taken by an adult, every two hours, for four or five doses, and then every three or four hours. He asserts that very decided benefit follows the use of these capsules. They are the most useful remedies that he has tried for the treatment of grip.

In addition to the preceding, Doctor Robinson adds 1-2 grain of phenacetin to each capsule, providing pains are severe; but in that event the patient should be watched carefully. He further advises the insertion of a little carbolated petrolatum into the nostrils; also a mouthwash and gargle of alkaline antiseptic solution (N. F.).

While he has never used the foregoing ammonium salicylate combination for preventing attacks of influenza, he is inclined to believe that it might be useful for that purpose. He also suggests the desirability of alkaline medication in these cases; for instance, the use of Vichy water or simply sodium bicarbonate in association therewith. Isolation of the patient is advised.

OPTOCHIN AS A CHEMOTHERAPEUTIC AGENT IN MALARIA

As evidenced by a number of notes printed in these pages, ethylhydrocuprein (or, optochin, as it has been termed for short by Morgenroth, its sponsor) has acquired a safe reputation in the treatment of pneu-

mococcus-infections and in ophthalmology, but it also bids fair to prove useful in protozoic diseases, more particularly in chronic malaria.

In the latter respect, Izar as well as Nicosia have reported extensive excellent successes (*Berlin. Klin. Woch.*, 1914), while from among subsequent writers we quote Emil Liefmann, of Frankfurt a. M., who describes his result in one such case (*Ther. Monatsh.*, 1915, p. 260). All these clinicians consider optochin superior to plain quinine in these affections.

Liefmann's case was one of malarial anemia, contracted some three years previously in German East Africa, the attack supposedly having been cured at the time; but the man (a 28-year-old civil engineer) had continued to take quinine prophylactically until he returned to Germany two years later. In the course of months, however, he began to sicken, and the author, when consulted, diagnosed a severe form of the condition named and the existence of a greatly enlarged spleen, and likewise enlarged and indurated liver. The microscope revealed the presence in the blood of the Laveran semilunar plasmodia and a few small rings of the "tropica"? The relatively small numbers of protozoons in the peripheral blood, together with the splenomegalia, warranted the assumption that the parasites were heaped more in the deeper-seated organs.

Because of the known resistance of the macrogametes to quinine, Liefmann prescribed ethylhydrocuprein hydrochloride in doses of 1-2 Gram (7 1-2 grains) three times a day, besides ordering a roborating diet.

We omit the clinical picture and laboratory findings, confining ourselves to the result. The treatment began on the 18th of March, 1914, and by March 27 the abdominal tension was greatly diminished, while the patient's appetite was enormously stimulated, amounting almost to voracity. By the 31st, his condition and appearance were much improved, the evening temperature for two days had not exceeded 36.7° C., and the spleen was markedly reduced in size. The optochin now was reduced to two doses a day, but supplemented by arsenous acid in increasing dosage. By April 6, the subject declared himself as being cured; however, the spleen still showed some enlargement, while after a long search over three blood smears a single macrogamete was discovered. Consequently, the optochin, 1-2

Gram per day, was continued for five days longer, and on the 16th of April the spleen did not evidence enlargement under percussion, although palpable at very deep inspiration. Parasites were absent. The patient had a rosy appearance and had gained 10 pounds. The hemoglobin-content of the blood was 80 percent.

Thus, within the short period of three weeks, by means of ethylhydrocuprein, a clinical cure of pronounced chronic malarial anemia was effected, an enormously tumefied spleen reduced to normal size, and persistent forms of malarial plasmodia were made to disappear from the blood.

The author hails this as a triumph over ordinary quinine-therapy; whether, the cure was absolute, however, cannot be determined, the subject having immediately returned to his post in Africa.

It may be mentioned that the patient experienced ear-noises, tremors, and ocular flickering, and, while taking the three daily doses, a confused sensation; which symptoms, however, always passed away after an hour at most.

THE FATE OF PAPAVERINE IN THE ORGANISM

Some highly interesting animal-experiments conducted by K. Zahn, of the Pharmacologic Institute at Breslau, have been described in the *Biochemie he Zeitschrift* (1915, p. 444.—*Cf. Ther. Monatsh.*, 1915, p. 270), the outcome of which would, for one thing, seem to explain why—as has been observed—patients rapidly become dulled against papaverine when physiologic doses are repeated at relatively short intervals, while, secondly, presenting a further possibility of the ultimate fate of the active principles in the animal economy.

Hitherto we knew of but two ways in which alkaloids were disposed of, namely; either they are excreted unchanged in their entirety—strychnine, for example—or, like atropine, they are partly destroyed and in part excreted unaltered.

Now, however, the extensive series of delicate experiments by Zahn have demonstrated for papaverine that that alkaloid is rapidly and utterly annihilated in the system when introduced parenterally. At least, that is the reasonable deduction, for its presence can not be demonstrated in any organ or in the excretions, nor was the author able to discover any derivatives or products of catabolism. Only when super-

lethal doses of papaverine were given by mouth, appreciable amounts of it could be found after death; and then only in the digestive tract of the animal. Incidentally, the facts here developed will prove of considerable forensic interest.

One other fact should be noted in this connection, namely, papaverine-sulphonic acid exhibits a physiologic action contrary to that of papaverine itself, in that it not only is extraordinarily nontoxic, but a large percentage of it can be regained from the excreta in an unchanged condition.

A few posologic addenda may here be adduced from Doctor Zahn's experiments. Rabbits are not readily affected by papaverine; not less than 1.4 Gram per kilo weight is required to induce moderate respiratory acceleration. Cats and dogs are much more sensitive to it, in that doses as small as 0.06 Gram per kilo-weight give rise to severe toxic symptoms—tremor, staggering gait, hyperexcitation followed by paralysis—while 0.12 Gram per kilo kills a dog within a few hours.

BALANTIDIOSIS CURED WITH EMETINE

A further extension of the rapidly widening therapeutic field of emetine has been reported from South America, the spokesman being Dr. Relli Axter-Haberfeld, of Belio Horizonte (Brazil), his highly important contribution to the literature having been published in the *Muenchener Medizinische Wochenschrift*, 1915, page 152.

The author (who bears a Portuguese-German name) had for a patient a 60-year-old woman afflicted with a severe balantidiosis and, reasoning from dysentery and pyorrhea, concluded to give emetine a trial. The result was a brilliant one.

Once each day, he administered a subcutaneous injection representing 0.03 Gram (1-2 grain) of emetine, until a total of 0.25 Gram (4 grains) of the alkaloid had been given; in other words, 8 doses of 1-2 grain in eight days.

For four months, the woman had had on an average daily 12 liquid alvine discharges, mixed with blood and pus, and, consequently, was emaciated in a high degree and unable to stand unsupported; but had no fever. The emetine course cured her of this affection completely, and permanently. After the first dose, she had but one stool within twenty-four hours. And so it continued, the stools improving, while no more balantidia were found after the third day, not even dead

ones. At the points of injection, there had formed intensely itching eczema-like patches, but these disappeared readily upon the application of some appropriate unguent.

This parasitic affection seems to be but rarely encountered, so that the editions of Gould's and Stedman's (the two dictionaries at the abstractor's disposal at this writing) do not even contain the (properly constructed) term balantidiosis (or, is balantidi-asis better?), while there even still exists doubt as to the specific symptom-complex being ascribable to this organism. As to this latter question, that possibly find its answer, in that some investigators recognize both a pathogenic and a nonpathogenic species.

Balantidium means, a sacculate creature (dim. of Greek *balantion*, bag; *balanos*, acorn, something "ball"-shaped; hence, also, glans penis); other names for this infusorian parasite being, *paramoecium coli*, *plagiostomacoli*, *leukophrys coli*, and *holophrys coli*. It is a protozoon, and was first recognized as long ago as in 1856. It is found abundantly, and principally, in the colon of the pig, but also occurs in man, more especially in Russia, Sweden, Italy, Cochinchina, and China, to which here is added Brazil. In Europe, it predominates in the more northern countries, and prevails principally among the peasantry—people in contact with the swine.

In its natural host, the pig, no serious disturbances occur when thus infested, while in man—as we have seen in the foregoing—profuse, obstinate, and exhausting diarrheas are caused by it, very much, we see, as in that other protozoic affection, amebic dysentery. The balantidium is supposed to be protected against the gastric juice by its encysting capsule. Its presence may be discovered by introducing a sound into the rectum, when the protozoa will be found in the adhering mucus.

The importance of Doctor Axter-Haberfeld's announcement, this writer's opinion is, lies in the fact that here we have an instance of emetine being antagonistic to a protozoon belonging to another genus than those of dysentery and of pyorrhea. Furthermore, this discovery is doubly gratifying, inasmuch as heretofore the treatment of the disease has been purely symptomatic (astringents—uzara); while the management now has been placed upon a scientific basis and a cure almost is assured. This should appeal to our readers in some of the tropical countries where this affection prevails, and also encourage them to try it in other forms of protozoic parasitism.

Miscellaneous Articles

Summer Diarrhea. Also an Inspiration from the Columbia Highway

I NOTICED yesterday, while riding over the Columbia Highway, that at a place called Oneata Gorge you can see for a long way between the projecting crags of the gorge if you stoop down and look along the surface of the water. If you stand up, the shoulders of the frowning cliffs that reach from the water to the very clouds hide the view. Now, if, as I said, you stoop down you will be able to see, 'way up the gorge, a little corner of a green meadow or what appears to be a green meadow. And it really is a little corner of an immense green meadow, but one that no one hitherto has ever visited. I will not say that it is so situated that none has ever been able to visit it, but mean that no one up to this time has seen fit to do so. In the center of this meadow, as I understand it, there is a very beautiful city—a surpassingly beautiful city. Its Corinthian columns are the vines and tendrils of the Oregon grape, its walls are rose-leaves, and its roof is of turquoise, but which, I am led to believe, under ordinary circumstances a lot of people mistake for the sky. It is presided over by the God-of-Things-That-You-Want. One of these days, when I have a little spare time and the water in Oneata Gorge happens to run extra low, I may decide to go up there to that charmed emerald mead.

I am led to believe that in a place like that there will be present no summer diarrhea; but, such a place being more or less Elysian and at the same time inaccessible, we must take such measures anent the treatment of summer complaints as time and experience seem to justify.

The most noticeable and interesting thing in connection with the summer complaints of children in this locality is, that during the past few years it has almost disappeared. Twenty-one years ago, when I began to practice here, there occurred many cases each year. The "epidemic" would begin about July 15 and continue, with considerable severity, until

about the latter part of October. The past few years, though, have not seen this program repeated to any very noticeable extent.

This decline in these seasonable diseases is due, I believe, to the present supply of pure milk and pure water, and to a better supervision generally over the foodstuffs that are sold in our city. I was about to say that a more intelligent attention to general hygienic conditions, on the part of the mass of the people, had a lot to do with this decline of the disease; only, I am bound to say (between ourselves) that I have but little confidence in the people in general to take care of themselves. Improvement in the general health of the community along these lines is the result of efforts of the health-authorities, backed by the sentiment and practical efforts of the medical profession.

The several types of digestive troubles that we are called upon to combat are: gastritis, gastroenteritis, acute colitis, and a sort of combination of two or more of these troubles. A somewhat curious thing in connection with the decline of these troubles in this community is, the great apparent increase of acute colitis. It seems to me that about one-half of the cases encountered are colon infections, whereas these formerly were much less frequent—that is, comparatively speaking.

As to my mode of treatment, I fear, I have nothing to offer that is new or so very interesting. The initial dose of calomel and castor-oil has been tried in the crucible of the years and found to be right. I have not the slightest doubt but that the judicious initial purgative dose administered by careful parents and nurses who have been properly instructed by their family doctor has saved thousands of lives. To my way of thinking, it should be given virtually always, irrespective of what the whole chain of circumstances may be in a given case. Where active vomiting is present the calomel should

be given in 1-20-grain doses, often repeated, to a child up to five years of age, until the vomiting has stopped. Ordinarily 1-10 grain at a dose is proper, until the sufficient total quantity has been given. Should the attack be very mild and the calomel act well, it is sometimes proper to omit the castor-oil.

In acute gastritis, one may often have quite a nice little problem to work out. The doctor must know, before he begins with the calomel, whether he has acute gastritis or one of the more serious surgical diseases of the abdomen to contend with; the one condition being very simple, the other attended by the greatest danger.

Should a considerable rise in temperature occur, aconitine and atropine are indicated. These should be given in minute but often repeated doses. I believe that atropine has never yet been accorded just its proper place in the treatment of this class of troubles, for there is seldom a case in which the indications for atropine will not be found. This is particularly true of that grave and dangerous condition named cholera infantum. To my mind, that condition affords a remarkable picture—an extreme picture of the indications for atropine. These remedies will not have a tendency to provoke additional vomiting, according to my observations.

The state of the tongue affords another indication for treatment. A furred tongue (and it usually is furred) calls for the sulphocarbolate of sodium, or the combined sulphocarbolates, according to Abbott and Waugh. It should be remembered that either of these remedies may easily be given to children by mixing it with milk-sugar. A child of one year may receive one grain every two or three hours.

A certain matter here occurs to my mind in connection with the sulphocarbolates. With all due respect to the "inventor" of the combination of the three sulphocarbolates, it is my honest opinion that he does not recommend a sufficiently large dose in the ordinary conditions. My reason for thus "speakin' out" is, that I do not get results from the dosage recommended. When, however, I double this amount or maybe make it three times larger and repeat it oftener, then I do get results. Consequently, I now give to an adult 10 grains of the combined sulphocarbolates every two or three hours for the first two or three days, but "with one eye on his stomach," and for a child of one year I prescribe 1 grain, in like manner. You will see that the dose for the child is just twice that for the adult, under the age-rule.

We are all beginning to understand that it is not absolutely necessary to exclude milk from the diet in the treatment of summer complaint, provided the milk is pure and we do not neglect the Bulgarian lactoid tablet. This ferment is a special boon to the weakly child—which also is the one most likely to be affected. A mite of discrimination is necessary, however, for, if there be certain states of acidity of the stomach, the lactic-acid ferment may do harm. This I believe to be so unlikely, though, that we might add these tablets to our list of unfailing remedies for this condition.

It has "done rained and rained" and our ball-team has a hard time of it, and we cannot see the games, for "they ain't none." My ranch, and the logan-berries that I have there, are doing fine.

J. H. BRISTOW.

Portland, Ore.

[It rains in Chicago, also, and it keeps on raining; but we have baseball games—and good ones, too. Also, we can boast of the most delightful climate, and have mighty little diarrhea among us, thanks to our drainage-canals, our water supply, and a helpful health commissioner, who doesn't want doctors to overwork during the summer months, realizing their need for a vacation once a year.

I have ridden along the Columbia Highway, so, I can visualize that beauty-spot up Oneata Gorge. Still, who but our friend Bristow could find in it a text for the treatment of infantile diarrhea? Good treatment, too, and bound to be followed by excellent results, in steaming eastern cities as well as in the ideal climate of the Oregon Coast.—Ed.]

THE WESTERN MEDICAL TIMES

The reading matter of medical, as of other publications is produced either with the aid of the pen (which is a euphonism for the typewriter), or with the scissors. Both methods require brains. In the former case the journal has to rest entirely on the merits of its original matter; in the latter the original matter is supplemented by the more or less careful reproduction of the results of other workers in the field of medical publicity.

In *The Western Medical Times* for July, the editor, Dr. George L. Servoss, has produced not only a very interesting, but an eminently readable journal, which is characterized by being entirely original. It is "different" in the fearlessness with which it attacks several matters of which the editor

disapproves. Not to mention the courageous and clever defense of that so-called prince of quacks, Paracelsus, it requires courage to discuss so pitilessly the faults and shortcomings of a medical treatise, as is done in the second article, and also in the third editorial.

In the matter of book reviews also the *Times* attempts to set a standard which is beautiful if it can be lived up to. Altogether the number is well written and splendidly edited. We congratulate the contributors and the editor.

HOW I TREAT DYSENTERY, ENTEROCOLITIS, AND OTHER DIARRHEAS

Elimination.—My experience enables me to speak "authoritatively": Clean out, clean up, and keep clean.

Intestinal antisepsis should be strictly practiced; sanitation strictly enforced, as to premises, dwellings, and room; patient's room kept quiet, cool, and well ventilated; company and all other disturbing influences avoided; complete rest, both physical and mental, enforced; patient's body kept scrupulously clean; excreta disinfected and buried or poured into a good sewer, or, best of all, burned; flies not allowed to enter the house, especially the sick-room. The diet is all-important; see to it that your favorite diet list is strictly adhered to. Sweet milk in every form, whether scalded, boiled or peptonized, is to be avoided. Only albumen-water, white of egg in water, is allowed for the first twenty-four or forty-eight hours. Water should be drank frequently, hot water liberally is good. Give parched-flour gruel, rice-gruel, broth or soup of chicken, mutton or beef or beef-extract, when these do not prove too laxative; also buttermilk and liquid peptonoids. Squirrel extract, made the same as beef-extract, is best of all, and especially good for children suffering from colitis; I have employed it for years. Overfeeding is to be strictly avoided.

Nutritive applications.—Fresh unsalted butter rubbed well into the skin, three times every twenty-four hours, all that the skin will absorb, or else pure hog's lard or olive-oil, is fine for emaciated babies and children. Pure corn-whisky externally applied (not given internally) is often a lifesaver, by stimulating and supporting the vitality. This is true notwithstanding the assertion heard, that whisky never acts as a nourishment or stimulant, but always depresses and poisons. Warm the whisky and rub into the skin of the trunk and legs. A good way for babies

and young children is, to saturate soft pieces of cloth with the whisky and place them under each arm; this affording a gradual and continuous absorption. For an adult, one or two tablespoonfuls may thus be applied every one, two or three hours; for children, in proportion. Gauge the amount, frequently applied, so as to steady the pulse and to support the system, avoiding overstimulation. When needed, use the whisky freely in this manner.

I have in mind the case of colitis of long standing, in a child two years old. This baby was very much emaciated and had not been able to take food for some time. I continued these whisky-rubs for weeks, which kept life and strength in the child when so weak, often, that the pulse and respiration would cease, and at times I was forced to resort to artificial respiration. The child now is a grown woman.

Never give up, but work, work, work.

Another child had a catarrhal condition of the bowels. This child, after growing very thin and weak, ceased to take nourishment in any form, and for four weeks food did not enter its mouth. We kept this little girl alive during all this time by means of the applications of whisky. It is needless to cite other cases. While the whisky will nourish and stimulate, it will not keep up the bodily warmth; hence, hot-water-bags or similar devices must be kept near the patient.

Tympanitic distention and pain of the abdomen.—Two or three times daily rub over the bowels a mixture of oil of turpentine, camphor, and lard; also keep applied a hot peach-leaf poultice. This is especially good for children.

While the fever is active, sponge the body frequently with a solution of epsom salt.

For exhaustion, nutritive enemas are more likely to be retained by adults. Antiseptic and astringent enemas and bowel flushings prove of great service, but overdistention of bowel must be avoided. Antiseptic and healing enemas, as of oil of turpentine in olive-oil, and retained, may be necessary. For the gas, pains, and so on, give enemas or tincture of asafetida, oil of turpentine, of kerosene.

Consultations.—To help the patient and aid the regular physician in charge, when needed or desired, call in a real doctor, one who is acquainted with his medicines and who believes in them. Avoid the self-constituted "stomach-specialist" who does not believe in medicine. If a "stomach-specialist" is desired, get one who not only believes in proper

diet, but one who also believes in medicine and knows how to use it. Generally the so-called stomach specialist voices the now obsolete cry, "I do not believe in medicine"—a confession that he knows nothing about medicine. He then proceeds to discuss what he thinks he knows about the germ- and the diet-theories, with all of which the physician in charge is perfectly familiar. This wise guy persists in discussing the all-curative power of diet—his formula, of course—in opposition to the medicinal treatment. He does not know of or advise a single remedy for the relief of anyone of the acute symptoms, though he calls himself a doctor; crying diet, diet, when the child cannot eat, when the agonized father appeals to him to relieve the sinking pulse, the burning fever or threatened convulsion, while the heartbroken mother extends her arms as if to hold the little sufferer yet awhile longer with her, while praying with all her soul for the return of the lifetime to the little one.

C. W. HUNT.

Brevard, N. C.

THE GOLDBERGER THEORY OF PELLAGRA

With reference to your editorial comment, in a late issue of *CLINICAL MEDICINE*, on the "Goldberger Theory" on the etiology of pellagra, I wish to state here that before Doctor Goldberger promulgated his theory I was fully convinced that pellagra was caused by a onesided diet. Moreover, when one takes into consideration the economic factor, he cannot fail to appreciate Goldberger's views and the far-reaching importance of his investigation.

In this locality, as in most of the cotton-producing country, the cotton is raised by renters or sharehands. These tenants are furnished their necessities by the landlord or by some merchant who holds a mortgage on the prospective crop. The tenant, as a rule, is furnished little besides cornmeal, "fat meat" which usually contains little or no lean (in other words, bacon), compound lard, molasses, and snuff and tobacco, besides, sometimes, coffee and sugar. If any person has to live on this diet, from March 1 to cotton-picking time in October, before he can get the kind of food he really wants and requires, is it any wonder that a chronic disease such as pellagra is on the increase? I do not believe that sanitation has a thing to do with it, for, the people who live under good sanitary conditions and are able to

supply themselves with other things to eat besides cornbread and fat meat and molasses are not subject to attack.

I am not condemning the idea of good sanitation, drainage, housing, screening, and so on, but I see no need of attributing all disease-condition to bad sanitation, when the economic situation is at fault. The man who owns his farm, and is free of the crop-mortgage system very seldom is a victim of pellagra; but, when he is, if he then is put upon a proper diet, there is no question as to the outcome.

I have had under treatment about thirty cases this year and have three bad ones under my care at present. I have been treating from twenty to fifty pellagra-patients each year for several years, and I think I am better able to express an opinion than the man who sees a case of pellagra only occasionally.

J. F. HILBURN.

Moscow, Ark.

[This argument in support of the Goldberger theory of the origin of pellagra is well taken and evidently is dictated by the results of close clinical observation. We are far from denying the importance of faulty nutrition as a causative agent in the production of this disease; our position is, that the *relative* importance of this subject is not yet established.]

So far as we can see, the factor of faulty nutrition possesses the dignity of a contributing or predisposing cause, and we must look further back for the primary cause of the disease. The same role is played by faulty nutrition in the development of other wasting diseases, most notably phthisis, of which it was held to be the principal cause at one time. There is nothing surprising in the fact that improvement follows in pellagrins when a more suitable dietary is arranged; the same is seen in all disease in which malnutrition and its various sequelæ are of importance. Nevertheless, this fact is not sufficient to establish poor nutrition as the sole etiologic agent in the causation of pellagra.

Referring to the exhibit made by the Post-Graduate Medical School and Hospital, at the late meeting of the American Medical Association in Detroit, we cannot understand how anybody who studied this exhibit and who spoke with Doctor MacNeal or one of the other men in attendance could fail to be impressed with the great value of their investigation. This report is based upon a careful individual, social, and epidemiological study, by trained investigators, of 847 cases

of pellagra occurring in Spartanburg County, South Carolina. The advantages of studying all the evidence that can be secured in a circumscribed neighborhood, but where yet sufficient variations prevail as to locality, social condition, mode of life, occupation, and the like, are obvious. The fact that the members of the commission were particularly adapted for their work by special training and that they had every possible aid and assistance at their command is also to be taken into consideration in evaluating the importance and bearing of their findings.

The fact was established that, with very few exceptions, pellagra occurred in persons living in houses in which pellagrins had lived before them or in persons who had lived in close contact with pellagrins; the conclusion is that association is a factor, in the spread of pellagra, of much greater importance than has previously been assumed. The conclusion also is warranted by their findings that, in the mill-villages investigated by the commission, pellagra in some way is transmitted to non-pellagrous persons from a preexisting case, and that one of the important factors in this transmission is, residence in the immediate neighborhood of a pellagrin.

The endemic character of pellagra in villages where unscreened surface- or privies for the disposal of human excrements are in general use, and, reversely, the fact that pellagra did not occur endemically in other villages in which every house was provided with a water-carriage flush-closet connected with a sewer, as well as other similar observations, have compelled the investigators to regard inefficient methods for disposal of human excrement as an important epidemiologic feature in those communities in which pellagra is endemic.

In our endeavor to maintain an open mind in the study of this important disease, we are impressed by various considerations: Doctor Goldberger regards the fact, that six out of eleven convicts who had been put on a certain badly balanced diet contracted an affection diagnosed as pellagra, as sufficient evidence to justify the assertion that the cause of pellagra no longer is in dispute. The members of the Robert M. Thompson Commission point out only those conclusions that are fully justified by the results of their studies. They do not pretend that they have found the ultimate cause of the disease, and make full acknowledgment of the contributing importance of malnutrition from a badly balanced diet as an associated causal factor.

It seems to us that the work of a commission, carried on under the conditions obtaining in the investigations of the Pellagra Commission, is deserving of credit, and it behooves us to wait patiently for their final verdict, keeping in mind that this can not be rendered probably for years.

In the meantime, it is for us to adopt that treatment which has given the best results, including that of promoting a full and normal nutrition by regulating the dietary; also, to make use of those drugs (antiseptics, in the main) which aid in removing from the intestinal canal all offensive and septic material and in healing intestinal lesions. For the present, the treatment of pellagra must be directed by general principles; in the course of time, we may hope to find specific remedies. But, even if we do, close attention to the nutrition will always be one factor of primary importance.—Ed.]

"THE MODERN HOSPITAL" AND INDUSTRIAL WELFARE

We admire *The Modern Hospital* as a remarkably beautiful and fine journal which has a wide scope of interests, and covers many diversified phases of hospital activity, including social service. We are informed that the August number is devoted to a symposium on welfare work among the industrial corporations of the country, and contains editorials as well as special papers upon the subject by men and women who are fully qualified to write upon them, because of special studies and investigations. Among the topics discussed are those of first aid industrial nursing, lunches and diets for industrial employees, safety devices in factories, and athletic and social clubs for employees.

In the opinion of *The Modern Hospital*, welfare work should aim to secure three things, namely, to make employees healthy, comfortable and happy, increasing thereby their efficiency; to help them to provide for sickness and disability; and to provide entertainment and recreation. The journal also attempts to eliminate features of industrial welfare which are believed to be undesirable, and to emphasize those best suited to the needs of the American public. We congratulate *The Modern Hospital* on its own excellency and efficiency.

THE TREATMENT OF MALARIA

Too many of us think that, because quinine is recognized as a specific for malaria, all we

have to do is, to give quinine, and then more quinine. Some of the worst nervous wrecks I have ever seen were made such by the excessive use of quinine. Others of us go a little further and think that we always must begin the treatment with a good calomel-purge; then proceed to give from 8 to 12 grains of calomel, and, if the tongue still stays furred, we repeat the dose—literally “ad nauseam.”

Now, both of these things are essential: although not always the calomel. In fact, in my experience, it is but rarely necessary to give the calomel or any other mercurial, or, if at all, only in very minute doses, say, 1-10 grain at short intervals until 10 doses are taken, following this with a brisk laxative saline. This method gives me more satisfactory results than does heroic dosage. The quinine, while essential, should not be given in large doses. From 1 to 1 1-2 grains every two hours will do the work as effectually and with more comfort and less untoward results to the patient than will many times that quantity.

All malarial patients require acids, so, I include in my dietary list all acid fruits, pickles, tomatoes, and the like, and, in addition, prescribe hydrochloric acid in some form, preferably with essence of pepsin, after meals. Try this, and see how grateful a patient can be; also, witness the happy results obtained.

Do not starve malarial patients. I restrict the diet but very little, but am governed largely by the appetite. If the patient is hungry, I allow him to eat almost anything he wants; if he is not hungry, I do not force any food upon him. The next time you are tempted to give a calomel-purge, ask your patient whether he would like to make a full meal on green corn. If he says yes, let him eat all he wants, and charge the corn to me if you don't get a better effect than you would from your calomel.

That old chronic case of malaria that will not yield to quinine in any-sized doses cure with this prescription:

Potassium nitrate. dr. 1
Ferrous sulphate, exsiccated. dr. 1
Nitrohydrochloric acid. drs. 6

Mix, warm slightly, let thoroughly digest, then add:

Liquor of potassium arsenite. drs. 2

Directions: Take 7 drops in plenty of water, after meals. [Suck through a glass tube, and, after a swallow of water, quickly rinse the mouth and teeth with a weak solution of sodium bicarbonate.—Ed.]

If you are a country doctor and have to furnish your own medicine (as I used to do),

and you have a charity-patient whom you do not want to take up much of your time and you want to cure right quick, so as to get rid of him, tell him to buy a bottle of quinine, then to measure out one level teaspoonful of it, divide this into four parts, and to take one such dose in a teaspoonful of good apple-vinegar every two hours for two or three days. Also, to take a tablespoonful of castor-oil every night. Then you can go home and sleep the sleep of the just, conscious that you have done a good deed to a fellow wayfarer in this vale of tears.

Warning: Do not give this advice to your good pay patients, lest they think that they cured themselves and feel disinclined to pay your bill.

Fully half of my patients are victims of some form of malaria. The treatment outlined will cure them here; it may not do so well further down south, but I believe that it will.

E. H. BOWLING.

Durham, N. C.

MALARIA AND DYSENTERY

I am resting this summer and feel lazy, so, your letter was quite welcome. One or two definite questions of yours are easy to answer.

Malaria.—My experience with malaria, in hospital and private practice, in the Philippines and in Florida, leads me to the following conclusions:

1. Every case of benign tertian, malignant tertian, (remittent or estivoautumnal), or quartan malaria can be cured with a single dose of quinine, provided the following conditions are observed: (a) The dose must be large—20 to 30 grains. (b) It must be given at the right time—six to twelve hours before the chill. (c) It must be single. Cases which have been treated with repeated small doses of quinine are not amenable to the single-dose treatment. (d) Cases of double or multiple infection are to be considered as separate cases, though in the same patient, and are treated accordingly. For example: A case of chills occurring every day, but at 10 a. m. and at 3 p. m. on alternate days, evidently is double tertian. This patient should get one dose of quinine on retiring the night before the 10 a. m. chill is expected, and a dose at 9 a. m. (or earlier) on the morning of the 3 p. m. chill day. (e) The quinine must be in readily assimilable form. Some quinine pills I have tried could be driven with a hammer into a board without

cracking them. They passed through the patient in the same unvanquished state. Friable tablets, powders, capsules and suspensions all are good, but the first-named are far more pleasant for the patient to take. (f) When putting a single dose of medicine into a stomach and depending on it to do anything, it is a good idea to be sure that the organ is in working order. I once found, at necropsy, some unchanged quinine tablets in the stomach of the corpse.

2. The single large dose given as here advised is harmless and never produces cinchonism, unless it is repeated.

3. Most patients can be cured with small doses, many even with minute doses, but, (a) It takes longer. (b) Repeated small doses (2 to 5 grains) usually produce cinchonism before they cure. (c) Many sufferers cannot be cured with small doses, because a strain of plasmodia has been developed that is resistant to quinine. Such cases result fatally or become chronic and run into cachexia. Some of them are amenable to arsenic, but a case which has been immunized to quinine is very difficult to cure. Oleoresin of capsicum is a very good tonic, but it is better as a preventive than as a cure.

4. There is a form of tertian malaria that is very fatal and not amenable to quinine in any dosage, but which can be cured just as promptly and certainly with nuclein. This form fortunately is unknown in Florida and rare in the Philippines, but I have heard that it is comparatively common on the west coast of Africa.

5. The foregoing applies to the sulphate of quinine. I have not studied any of its other salts in malaria.

6. The initial chill in a recent sthenic case may be broken up and the attack aborted with pilocarpine, 1-3 grain hypodermically. Later, and in an asthenic case, pilocarpine is too depressing, and, if used at all, should be strongly guarded with strychnine.

Dysentery.—Clinically, there are only two kinds of dysentery. If the onset is gradual, the course chronic, the blood loss small, the discharge of mucus large, then the case is amebic.

Treatment of amebic dysentery: Emetine, 1-2 grain hypodermically, and alphozone administered in enemas. Either of these two remedies given as above will cure, but both together cure in less than half the time when given singly.

Emetine acts through the blood, and only so. It is doubtful whether it is of any use locally, except as it is absorbed into the

blood. It cannot penetrate the mucus or the cysts that enclose the amebas.

Alphozone acts locally, and only so. It is an oxidizing agent and an amebicide of great power. It dissolves the mucus and the cystic envelopes, and destroys the amebas in these strongholds better than will anything yet discovered, so far as I know. I have not found it satisfactory given internally. It must be applied locally in solution of sufficient strength—1:1000 at least. Alphozone is harmless in any degree of concentration. It is better than emetine as a local amebicide in pyorrhea. It has the unpleasant metallic taste of the peroxides.

A sudden onset, acute course, much blood, and comparatively little mucus indicate *bacillary dysentery*.

Thymol is useful in both forms of dysentery. It is a bactericide, and it kills amebæ by destroying their symbiotic bacteria. The cleanout and cleanup process obviously is important as an introductory as well as adjuvant treatment. The combined sulphocarbolates with thymol I have found the best medicine to give by mouth.

CHARLES F. MORRISON.

Apopka, Fla.

A FLORIDA COLONY FOR AGED DOCTORS

On page 562 of *CLINICAL MEDICINE* for July, we referred to an offer, made by Dr. A. T. Cuzner, of Gilmore, Florida, to donate four acres of land as a nucleus for a colony where retired physicians might spend the evening of their lives in beautiful surroundings and in the congenial association of their kindred. By a strange coincidence, Dr. A. R. Hollman, resident at La Ceiba, Spanish Honduras, makes a similar offer; which, however, is appropriate more for younger men still physically vigorous and capable of pioneer work. For the aims and purposes outlined by Doctor Cuzner, his suggestion appeals to us as eminently feasible and practical; also as very desirable. Being situated very near to Jacksonville, the place is easily reached, while the conditions of living seem to be ideal. But, we will let Doctor Cuzner speak for himself, who, in a recent letter, writes:

I have delayed writing, for lack of preparedness, the subject-matter being a sanatorium and homes for old doctors, where the latter might enjoy the last years of their lives.

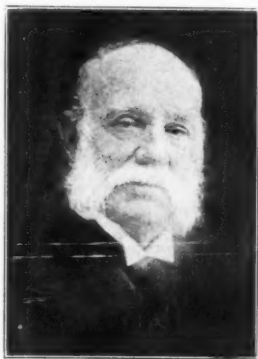
I proposed to donate land for that purpose. This land is situated on the banks of the St. Johns River and about ten miles distant from the Atlantic

Ocean. When the wind is from the northeast, we can hear the roar of the ocean-billows as they strike against the shore. The land lies four miles from the ferry to Jacksonville. I enclose a few photographic views, marked to indicate from which direction they are taken.

The land at the river-bank is a high bluff, at the bottom of which is a sandy beach excellently suited for bathing. There is good fishing almost all the year around. I also enclose Professor Mitchell's data concerning the climate and temperature conditions. Now for a suggested plan.

First: I am to donate the land.

Second: A company is to be formed, to consist principally of doctors. Capital is to be obtained by subscriptions to stock, and each physician subscriber is allowed, to the extent that the plot of land donated will permit, a site for a permanent home cottage. A sanatorium is to be built where patients can be treated for moderate charges. Cottages could be erected and rented to physicians for winter residences.



Dr. A. T. Cuzner

From among those physicians who are permanently located on the grounds, a medical staff could be formed to treat such patients as occupied the sanatorium-building.

Outbuildings or offices could be erected where cooking and other necessary work could be performed. Boats could be owned privately, and also provided by the association for hire.

There is no doubt in my mind that charitable wealthy citizens of Jacksonville would endow a number of beds.

As to how funds could be raised to build, I would leave that to those who may favor the enterprise. I should like *CLINICAL MEDICINE* to take the matter under consideration; also *The Medical World*, *Medical Standard*, and *Medical Summary*. Doubtless, enough physicians would be found among the 150,000 subscribers of these four magazines to become partners in this enterprise.

I am about to enter upon the 78th year of my life, and I believe that I have



Looking Northwest

reached this advanced age largely as a consequence of my residence for twenty-seven years in this healthy locality. I am like an old soldier and I like to fight my battles against disease over again—discussing them with others. Congenial company is what I most desire, hence, my willingness to donate this land.

A. T. CUZNER.

Gilmore, Fla.

The climatological conditions prevailing in Gilmore are practically the same as those for Jacksonville. Under normal conditions, the climate is equable, although there often are clear, cold, bracing days in winter and high midday temperatures in summer. Early spring and late autumn are the most pleasant seasons of the year, as they are characterized by moderate temperatures and a greater percentage of clear skies. While frost is experienced occasionally—and we remember having felt good and cold in semitropical Florida—real winter weather is the exception. Reversely, in the region where Doctor Cuzner's land is located, summer does not



Looking Northwest toward the Ocean

degenerate into gehenna, the highest mean temperature for any month between 1871 and 1907 never having exceeded 86 degrees.

The peculiarities of the soil, added to those of the climate, make it possible to grow there some sort of a crop all the year round, and those who like to till the earth will find ample opportunity in that respect. The proximity of the water, too, will prove powerfully attractive for many physicians, to our personal knowledge.



Looking South from the Bank

Altogether, Doctor Cuzner's scheme "likes us mighty well" and we sincerely hope that it will come to a splendid fruition. If there is room for medical journalists, even though these fellows never grow old, but just drop out and die, we hope to find a chance to go down there some day, for a vacation. We might show the "colonists" how CLINICAL MEDICINE is edited; or, at least, something about it.

Any physician interested in this plan should write directly to Doctor Cuzner, who will be glad to hear from everybody who has a suggestion to offer as to how best it can be made a success.

PHYSICIANS' BOOK PLATES

Dr. H. J. Achard, Ravenswood, Chicago, informs us that he intends to prepare a check list of book plates owned by medical men, including dentists, in the United States. Doctor Achard will be grateful for contributions from the owners of book plates, in so far as he does not already possess them; he requests that the names of the designer and of the engraver be noted on the back of any plate that is sent to him. The preparation of this check list will take a rather long time,

as the work is to be done only during leisure hours but it is hoped that it can be accomplished in the course of the coming winter.

It is desired to include, as much as possible, bookplates of medical libraries, medical colleges and other medical institutions. Collecting bookplates is an interesting hobby and was sanctioned by the late Dr. Roland G. Curtin.

HOMEOPATHIC REMEDIES IN THE COLIC OF INFANCY

Not every attack of paroxysmal abdominal pain in a little child is colic. When the pain is associated with vomiting, collapse, the discharge of clear mucus and blood, and abdominal distention, I think of intussusception and search for a sausage-shaped tumor; also make a rectal examination. If in addition to the usual symptoms of colic there is marked rigidity of the abdominal muscles, especially of the right rectus, the thought is of appendicitis.

When convinced that the little patient really is suffering from colic, relief of pain is of first importance.

As a routine remedy, Waugh's anodyne for infants is certainly fine. I clean out the bowel at once with a high enema of a temperature 110° F., then apply hot fomentations to the abdomen and to the feet. If there is much abdominal distention, with constipation, atropine sulphate, 1-10,000 grain every ten minutes, is effective.

If, besides the pain, there is looseness of the bowels, give tincture of chamomilla, 1-24 drop every ten minutes.

If it appears that the colic has come as the result of exposure to cold, give colocynth, 3rd homeopathic dilution.

When the pain evidently is the result of indigestion another homeopathic remedy often proves effective namely, nux vomica, 3rd dilution.

If the child is well nourished and the pain is somewhat relieved by heat and pressure, one of the tissue remedies, mag. phos., may be prescribed with confidence. Dissolve 10 grains in a teacupful of hot water and give a teaspoonful every ten minutes, until relieved.

Having ministered to the most urgent need of the child, one must take time to study the basic cause of the colic. This may be too much milk at a feeding, too rich milk, too frequent feeding. Or the cause may be in

defective bowel action. Not infrequently improper diet of the mother or her failure to take sufficient open-air exercise is at the bottom of the child's suffering. While it is not within the plan of this brief communication to discuss the feeding of infants and the correction of constipation, I want to add, in closing, that some trying cases of intestinal indigestion have been greatly benefited by galactenzyme, one tablet added to each feeding.

Bellevue, O.

H. K. SHUMAKER.

MORE DOUBLE TWINS

I notice that in the June issue Dr. Laura M. Plantz has submitted a photograph of a double monster. Here is one to match it, photograph of the twins preserved in alcohol being presented herewith. These were negro babies and were born February 2, 1915, the weight of the pair being sixteen pounds.



Doctor Durnham's case of double twins

They were stillborn, but I had very little trouble in making delivery. The mother was a multipara and in her seventh confinement. She made a perfect recovery.

Both of the children were males. They were attached from the neck to the navel, and had but a single cord.

W. P. DURHAM.

Sasser, Ga.

STRUCK BY LIGHTNING

On the evening of the 10th of June last, three young girls were out in the field, when an electric storm came up and a vivid stroke of lightning struck one of them, Ruby, 11 years of age. She was holding her hat with her right hand. The wave of lightning struck her right wrist, burning off the epidermis over an area of some two inches square, then scalding the arm up to near the shoulder, where the epidermis was burnt off for about 4 by 3 inches. Her right cheek was blistered badly. Her right side, under the arm, had the outer skin burnt off over some 5 inches square. Then her whole side for some 6 inches wide, down to the hip-bone, where it spread out over the buttock and the groin. Then it narrowed down and wound around to the back of the leg, blistering it, and tore off the shoe of her right foot, lacerating the bottom of the heel to the astragalus about the size of a silver quarter and causing a contused wound in the ball of the foot. The left leg was burnt and blistered from the knee down, and the left shoe was split in three places, while the foot and toes of the left foot were badly scalded.

The girl was unconscious at first and when she first came to was deaf. Her 12-year-old cousin Annie was shocked, but had the presence of mind to raise Ruby up and turn her over and rub her. Then it began to rain and hail, and this, together with the aid that Annie rendered, saved the child's life.

I was summoned and arrived at the bedside in about one and one-half hours. I found Ruby suffering from severe pain in her heel, very nervous, her heart very feeble, and showing symptoms of collapse; besides, of course, the conditions described above. I had her body rubbed, gave digitalin and strychnine for the heart; morphine sulphate, 1-16 grain, to relieve the nervousness; and instituted antiseptic treatment for the lacerated heel.

I am glad to be able to say that the girl has regained her hearing and is gradually recovering her strength. She has returned to her home in Roanoke. The other girl, Annie, easily recovered from the shock experienced. The third companion was unscathed. There were no trees, fence or other objects within

thirty yards of the scene of the accident, and there was no sign that any object near was struck.

J. K. SIMMONS.

Nace, Va.

[Fortunately these cases are rare. Doctor Simmons treated this case along the right lines and is to be congratulated on the outcome. When there is loss of consciousness, the physician who has a lungmotor or pulmotor at hand is fortunate indeed; in lieu of such an apparatus, practice artificial respiration by the usual methods. Atropine is the best stimulant of respiration, and glonoin, digitalin, and strychnine are the indicated remedies for cardiac feebleness. Heat should be applied to the extremities if they are cold and if signs of shock are present. Have other readers had experiences of this kind? We shall be glad to have their reports.—Ed.]

THE AMERICAN ASSOCIATION FOR THE STUDY OF SPONDYLOTHERAPY

We are informed that The American Association for the Study of Spondylotherapy will meet in Chicago, Illinois, on September 18 to 21. The programs are to be issued soon and can be had by writing to the secretary-treasurer, Dr. S. Edgar Bond, Richmond, Indiana.

This Association, which deals particularly with the study of reflex, clinical and physical therapeutics, is made up by men who are very much alive and who are accustomed to do things.

We are glad of the fact that they are to meet in Chicago, where we shall treat them cordially, and we hope that all the physicians attending the meeting will remember that our latchstring is always out. Take any Ravenswood car line, preferably the elevated, and come and see us.

AN ANTISEPTIC DRESSING

I have been a subscriber of *CLINICAL MEDICINE* for a long term of years. We have corresponded a little at times on sundry matters, but this was years ago. I have never burdened your desk with indigestible, incompatible pipe-dreams of the medical novice nor jumped on your contributors with a hatchet because they—had an impediment of speech. For these reasons I am asking you to do humanity and me a service by rushing the enclosed prescription to the

front. That means all belligerent nations! You are in a position to do this with greater ease and certainty than I could. So much for the prelude. Now, here is my formula for an antiseptic ointment:

Petrolatum.....	lb. 1
Zinc oxide.....	ozs. 4
Creolin (Pierson's or any other good creolin).....	drs. 4

For use, spread this ointment on a cloth and apply to the wound.

Now, doctor, this matter is so simple that I am offering that as an excuse for not writing a brief article on the subject long ago. I supposed that others would blunder onto the same thing if necessity demanded it.

I have used this preparation for twenty or more years in minor surgical practice, gunshot-wounds with fracture of bone, compound fractures and the like included, and it has never failed of fulfilling in every instance the highest ideals of a perfect antiseptic dressing. It will keep indefinitely, does not separate or deteriorate in any climate.

A screwcap tin or zinc box containing one or two ounces, a 2-inch gauze roller, with a small piece of heavier material, to make the plaster covering the wound of entrance and exit, will constitute an outfit for the soldier, to carry which will absolutely prevent all infection of wounds. There will be no inflammation whatever, and there will be great relief from pain. Of course, the main object is, to prevent infection, but the soldier could be instructed regarding the importance of not washing the wound and bandaging and compressing so as not to allow much blood or serum to accumulate in the tissues. Simply press out and recover at once.

It will not take you more than twenty-four hours in a city like Chicago to test this dressing. I assure you that nothing better can be desired.

I hear that they are using ampules of iodine tincture with an iodide, a wad of cotton and a bandage. The above preparation is circles of the earth ahead of it. Serums, cultures, vaccines, and antitoxins have befuddled the entire medical world. How long will it last?

JAMES M. CALLENDER.

Panama City, Fla.

[The "family" can supply the "clinic" needed to give Doctor Callender's antiseptic the try-out needed to demonstrate its merits—or its demerits. Suppose about a thousand of you make the necessary clinical tests.

I'm sorry that the doctor has such a poor opinion of "vaccines and antitoxins." The great war in Europe has triumphantly vindicated all the claims made for them. They are not cure-alls, but in the field of prophylactic medicine they are certainly supreme. Ever stop to consider *why the soldiers are not being decimated by typhoid fever, cholera, and typhus in this war?*—Ed.]

DOMASHING VRATCH—THE HOUSE PHYSICIAN

The House Physician—we take the liberty of suggesting "Household Physician" as coming nearer the purpose of the publication—has come to our desk in its first number, for July, 1916. This is a popular publication in the Russian language, the only popular medical publication in that language in the United States. The editors and owners of the little journal seem to be physicians, and it is intended for lay reading and lay instruction in sanitary and hygienic matters.

The review editor is informed that the articles in the first issue deal with the care of babies and with problems of food and health; there is a story or two, and several poems lend variety to the more serious discussions. We are informed by a Russian friend that the articles are very good indeed, and the evidence of our good friend, Dr. George F. Butler's picture as a frontispiece, bears out this judgment.

We wish the editor, Dr. Henry R. Krasnow, and his associates success in their undertaking to enlighten their countrymen in matters pertaining to hygiene, sanitation and domestic medicine.

LINSEED FOR HABITUAL CONSTIPATION

For the past twenty-two years, I have been looking for a good remedy for the relief of constipation, this "oldtime bugbear" of the medical profession, but until recently I have found none that was satisfactory. Not that I feel that I have given the remedy to which I am going to call attention sufficient trial to proclaim it a cureall, nevertheless, it has proved so satisfactory in a number of old chronic cases in which everything else had completely failed, that I must tell about it and ask others to try it or if any have already done so to report their experience.

The remedy is nothing else than oil-meal, or ground oil-cake, the common stock-food.

I instruct my patients to have a small bowl of it standing in a handy place and to eat from five to ten teaspoonfuls during the day. The meal is eaten dry, and the amount increased or decreased, according to its effect.

I now have in mind a lady who had not had a natural defecation since she was in her teens, and she is now about 40 years old. She had been obliged to take a physic of some kind all the time, and as one ceased to act, she would change. Diet and water drinking, and all the other expediences in the usual and unusual category were tried, but to no avail. Russian mineral oil and American oil-emulsion for a time were equally as effective as the other remedies. All failed. She was then advised to try the oil-meal. For two weeks, no effect from the oil-meal was visible. Then—wonder of wonders—she began having natural bowel movements, and these have continued ever since.

Another case was that of a young woman 25 years old, whose occupation compelled her to sit much of the time. She had been habitually constipated and was discouraged, and thought she must suffer thus the rest of her life. Through another of my patrons, whom I had been able to benefit for the same trouble, she was induced to consult me. I put her on emulsion of Russian mineral oil. This benefited her for several months. Then, however, she had to submit to a surgical operation and while she was confined in bed her old difficulty returned. I thought that we could easily overcome this, when she was up again, but now the mineral oil did her no good. Then I put her on the oil-meal, and now she has regular daily movements.

I might cite several other cases, but these two will suffice to illustrate my experience so far, and I trust it will induce others to give this expedient a trial. Use the oil-meal in conjunction with the other lines of treatment that have proved themselves of some value in your hands.

F. E. BRAUCHT.

Coleridge, Nebr.

[Pure linseed-meal, from which the oil has not been extracted, has long been a popular remedy for constipation. One enterprising manufacturer of breakfast-food has even put on the market a preparation containing a generous proportion of crushed linseed. There is no doubt as to its efficacy; the objection to it is, that the taste of the mixture soon becomes disagreeable to many of us and at last actually disgusting to some. We speak from personal experience. At first we

liked the food, then it caused eructations, and actual dislike was the final result, so far as we personally were concerned; and we understand that others have been similarly affected.

In a later letter, Doctor Braucht acknowledges the truth of this criticism, saying that the majority of users he knows of complain of disliking this food and soon becoming tired of it. However, he thinks the objection can be overcome by devising a better combination, and instructing people to use it in relatively small doses as a medicine, rather than as a nutrient. We are glad to submit this idea for some enterprising manufacturer to develop.—Ed.]

SOME HAPPY EXPERIENCES WITH EMETINE

I wish to report my experience with two or three cases in which that very efficient alkaloid, emetine, was used with very satisfactory results to me and to my patients. Here they are:

Mrs. H., age about 58, for the past twenty-five years had been bothered more or less with blood in the urine. At times the condition was so bad that she passed pure blood, which would clot. There were occasionally intervals of a few days when no blood was noticed in the urine, but these never lasted more than three or four days. I made an examination, using a catheter, to be certain that the blood came from the bladder.

I put this woman on emetine hydrochloride, administered hypodermically, giving 1-2 grain daily for a time, then every other day, then every third day, and finally at weekly intervals, using in all twenty-eight ampules. The blood soon ceased to appear in the urine, examination of the urine proving negative. Some seven months have elapsed since the treatment was discontinued, and there has been no recurrence to date.

Mr. C. J. C., 67 years old. Suffered from trifacial neuralgia of a severe type. Touching the face on the left side caused severe pain. There were paroxysmal attacks of pain several times daily, and without opiates of some kind he was unable to eat or sleep for days at a time. The lips seemed worse than any other portion of the nerve distribution, although the supraorbital region was very painful. Patient confined to his bed most of the time. He began having trouble in December, 1915, and I saw him for the first time on June 18th.

I made a diagnosis of pyorrhea alveolaris. I began immediately to give him emetine hydrochloride, 1-2 grain daily, and sent a dentist to the house to clean up his teeth. I also gave saline laxative, sulphocarbolates, and strychnine in 1-15-grain doses every other day, and prescribed an easily digested but nutritious diet.

The pain became less from the very beginning of treatment, and I have never had to give him any medication for the relief of pain. He is now free from pain, has gained seven pounds in weight, has a good appetite, and is regaining his strength rapidly; he calls himself a cured man. I shall continue to give him weekly doses of emetine for a few weeks before discharging him absolutely.

Miss C. Has been very particular with her teeth, and has scrubbed and brushed them after each meal. She suffered from rapid heart-action after eating, had been gradually losing weight for the past four months, and was bothered with gas for several hours after meals. She was constipated, had fainting spells, vertigo at times, and seemed to lack energy or desire to do anything more than just stay at home. Examination resulted in a diagnosis of pyorrhea alveolaris.

I administered emetine hydrochloride every day for four days, then every other day for eight days and then every third day up to the present time. Her appetite is improved, her heart does not bother her any more, and the troublesome gas is a thing of the past. She is gaining in weight and strength and considers herself very much better.

These are a few of the many happy results I have been getting from emetine in the past year or so.

L. V. DAWSON.

Plainview, Tex.

[The beneficial action of emetine in neuralgia is of great interest. Some of our readers may have seen in the April (1916) number of *CLINICAL MEDICINE* the abstract of an article published in *The Long Island Medical Journal*, contributed by Dr. Alexander C. Howe, who gave his experience with emetine used in the treatment of this condition. Doctor Howe found the emetine effective in cases of this kind in which it was difficult to find any direct connection between the preexisting pyorrhea and neuralgic pain. I hope some of our readers will follow up this pointer and let us know the results obtained. There are many of these resistant cases of neuralgia and neuritis drifting around the country and from one doctor to another,

many of them finally falling into the surgeon's hands.—Ed.]

THE TREATMENT OF ACUTE GASTRO-ENTERITIS IN CHILDREN

Acute gastroenteritis usually is caused by errors in diet, and under improper feeding may be mentioned unclean nursing-bottles and nipples, and contaminated milk and milk-modifiers. I need not dwell here upon the symptoms; what we want is, results.

In conditions of this nature, my usual procedure is, first of all to stop all foods. Then, if it is a bottle-baby, I tell the mother to procure Dennos' food, which, in my opinion, at the present time is the best milk-modifier on the market, having prescribed it for now nearly three years with astonishing success. I instruct the mother to mix one cup of fresh milk and one cup of water and allow this to come to a simmer, but not let it come to a boil. Then she is to add a pinch of salt, a teaspoonful of granulated sugar, and one teaspoonful of Dennos' food—the latter previously dissolved in water—and then to stir the mixture for five minutes. When cool, it is drained off into bottles, ready for feeding. Of course, the proportion of milk to water is changed in accordance with the baby's age.

To each feeding, depending upon the severity of the diarrhea, I have the mother add one or two of Abbott's Bulgarian bacillus tablets. (Here I may interpolate that I have been very partial to Abbott's preparation after having used a number of others. I must say that the Bulgarian-bacillus tablets as prepared by Abbott have always been found by me strong, virile cultures.) Finally I give instructions that the baby be fed from 4 to 6 ounces of this mixture every two to three hours.

Should the baby be older, so that it is also teething, I then prescribe of the Schuessler tissue remedies the calcarea phos. 3X, three tablets every two hours. If the child should vomit very much and exhibit considerable disturbance of the stomach, the giving of a mild laxative, and with an alkaline corrective, has proved beneficial. For instance, I may order the following prescription, changed according to the age of the child:

Fluid extract of leptandra drs. 2
Syrup of rhubarb and potassa drs. 4
Syrup, enough to make ozs. 3
Directions: One teaspoonful three times a day.

I believe that the excellent results that I obtain must be ascribed entirely to correcting the feeding, using a milk-modifier

(such as I do), and counteracting intestinal fermentation by giving with each feeding a Bulgarian-bacillus tablet. The foul odor of the stools soon disappears and normal yellow movements result.

WILLIAM F. SCHAARE.

Chicago, Ill.

GALENICALS THAT "WORK WITH CLOCK-LIKE PRECISION"

Dr. W. J. Robinson, in *The Critic and Guide*, settles the argument in behalf of the galenicals in a very few words. In the October, 1915, number of his little journal, he says:

"The editor of *Physicians' Drug News* says that he would not be willing to throw away those 'galenical preparations that work with the precision of the clock.' Neither should we. But we should very much like to know the names of the galenicals which work with 'the precision of the clock.' We are afraid there aren't any such."

Since it seems to appear to you that in the above, which I quote from *CLINICAL MEDICINE*, the last word has been said, will you kindly reprint it with the following added, and do justice to us all:

The above, from *The Critic and Guide*, seems final, but it isn't, since we can at least retaliate with castor-oil, and have as good an authority as Doctor Hare to back us.

Hare says concerning castor-oil: "Its action is so regular, it can almost be used as a timepiece."

The idea we wish to convey and that we believed would be generally understood was, that there were galenicals that could be depended upon to do certain things, minus great variation in time, as well as to do them accurately; which latter quality also pertains to the precision of the clock, and to date we have no reason for changing our mind.

A. P. REED.

Boston, Mass.

[Doctor Reed is too good a man for us to quarrel with, and, really, we agree with all he has to say about castor-oil. We'll go even further, and admit there are valuable galenical preparations. Our difference with the doctor seems to depend upon the meaning of the word "galenicals," so we will quote the definitions appearing in "Stedman's Medical Dictionary": "1. Herbs and other vegetable drugs, as distinguished from the mineral or chemical remedies. 2. Crude drugs and the tinctures, decoctions and other preparations made from them, as distinguished from the alkaloids and other active princi-

ples. 3. Remedies prepared according to an official formula."—ED.]

A COUNTRY DOCTOR'S JOY-RIDE

I had the good fortune to be a resident, for some fifteen years, of the town in central Kansas which was the boyhood home of William Allen White. During most of my residence there, the place was the home of the veteran editor Thomas Benton Murdock, uncle of the redheaded ex-Congressman Victor Murdock, who was known locally as "Our Vic." That town, too, was supposed to be the scene which Bill Allen White had in mind when he wrote his story titled "A Certain Rich Man." Indeed, many of the residents, especially the early settlers, claimed ability to identify the different characters in the book; and I, myself, had an intimate acquaintance and friendship with the harnessmaker, still a resident there, from whom, 'tis said, White patterned that character for his story.

The place is an average county-seat town, with more, perhaps, than the average culture and certainly more than the average wealth and "aristocracy." It is surrounded by a good farming and grazing country, and when I first located there the doctor thought nothing of driving fifteen, twenty or thirty miles to visit a patient. The country now is more thickly settled, new towns have been located, other doctors have come, and the drives are less extended.

In the twenty-five years that I have been a physician, I have had many experiences that seemed to me unique and often very interesting; and, in the hope that they may prove at least readable to others, I am going to jot some of them down for their attention.

One cool, clear, starlight Tuesday night in March, just as I was yawning and casting a wistful eye toward the bedroom, the telephone rang and I was called to visit a young lady who lived some seventeen miles in the country to the north-west, and was requested to bring with me Dr. X. The message said that the young lady had been very sick since Sunday with brain trouble; had had two doctors from nearer town, who had failed to relieve her, and they wanted reinforcement.

Accordingly, I hooked Bird to the buggy and, with Dr. X—, a rather diminutive gentleman physically but of normal stature mentally, we started on our seventeen-mile joy-ride, that ended as joy-rides often do. But I must not anticipate. Bird was a large, rawboned, rangy, thoroughbred sorrel mare, of great endurance, capable of jogging off

eight miles an hour without being urged, and ten or better under suasion. It was my custom to let her take her own gait for the first half-dozen miles, till she got her second wind, and then to encourage her to do better the rest of the way. In this way, we arrived at the home of our patient in excellent time, expecting to meet there Dr. Y—, her regular attendant. However, he was not there and, as we declined to see the patient except in consultation with him, a messenger was hurriedly dispatched to his home, eight miles away. (He had no telephone.) Then Dr. X— and I sat down to get a little warmth from the kitchen-stove, the only source of heat. In the adjoining room, we could hear the patient moaning, groaning, gagging, and apparently desperately sick.

After a long and tedious wait, with thoughts of a cozy bed at home tantalizingly before our minds, Dr. Y— arrived. We repaired with him to the sick-room, whereupon I confirmed the diagnosis I had already arrived at in my own mind. I found her pulse and pupils normal, tongue uncoated, breathing regular, lips and cheeks a healthy pink, no exacerbation of temperature, and only a history of three days' pain in the head, nausea, and retching. Dr. X— made a hasty urinary test. This turned out negative.

We now adjourned to the other room, and Drs. X— and Y— began to discuss a line of treatment in the presence of her father, brothers, and another young man, a stranger to me.

"Excuse me, gentlemen," said I, "I should prefer to discuss this case privately," and, turning to the father, I requested that we be shown to a private room. When we were alone, I said to my consultants, who both were my juniors: "I think we had better settle definitely upon the diagnosis before discussing the treatment." Turning to Dr. Y—I said, "What is your diagnosis?" He was taken somewhat aback by my abrupt query, stammered and blushed, then said: "Well, to be honest, I am puzzled. She seems to have some obscure brain trouble that gives her great pain in her head and acts reflexly on her stomach, but what it is I have not been able to answer satisfactorily."

Turning now to Dr. X— I asked him: "And what is your diagnosis, doctor? Do you still think she has kidney trouble?" He replied, "Yes, I do. Of course, the test showed nothing; but, then, we could not make a really thorough test here."

Then I assumed my most judicial air and spoke up: "Well, boys, I shall have to dis-

agree with both of you. There is nothing in her pulse, pupils, tongue; there is absence of fever and other symptoms to substantiate either of your diagnoses."

"Well, then, what is your idea? What is your diagnosis?"

Then I proceeded to explode a bombshell under them by saying: "It is plain to my mind that there isn't a thing the matter with this woman. It is hysterics, pure and simple. She is putting it all on and doing it for a purpose. Who is that young fellow out there with her father and brothers? Is he her sweetheart?" They could not tell, although giving me his name. "Well," said I, "I'll bet a plugged penny against the hole in a doughnut that he is, and, more, they have had a lover's quarrel and she is trying to arouse his sympathy. I have seen this thing too often to be deceived in this case." Then I asked Dr. Y—, "Has he seen her since she took sick?" He replied, "No, I have not permitted anyone outside of her own family to see her."

"Now look here," said I, "you let that fellow see the girl, and I'll guarantee he will do her more good in fifteen minutes than you have done in three days or than we all three can do in three weeks with a houseful of dope. Now let's go home." They readily accepted my diagnosis, and also my remedy. So, after assuring the family that Dr. Y— was doing all for her that any doctor could do, we took our departure.

By this time, the sky had become overcast, the temperature had taken a drop, and a stiff northwest wind was blowing, which fortunately was at our backs. It was just before dawn and intensely dark. We took a different road returning, and, as it was so dark, we could not see the road and had to trust to Bird's instinct to take us home. The sequel showed the mare's instinct better than our wisdom.

For miles we angled across big pastures paralleling the railroad-track, where we could see no road at all. At last we came to a point where the road had been changed since either of us had gone that way, and the wagon-road was made to cross the railroad instead of continuing down the lefthand side of the track. The mare started to cross, and if we had let her alone she would have taken us home all right. But I pulled her back and started her on down parallel with the railroad. But now I found I had a barbed-wire fence on my left. Bird was unwilling to go, soldiering and shying, and at last shied off from a pile of rocks. The wheel struck the

wire with a singing, whirring sound not unlike a rattlesnake's, striking fire with a shower of sparks that frightened the already spirited, nervous mare, caused her to give a lunge that landed the front wheel on top of a fence-post, hung the buggy on the fence, broke her harness, and she galloped away down the railroad while Dr. X— and I lay spilled in a heap on the ground. Fortunately for me, I missed the rocks, and most fortunately for him he fell atop, for my gross weight at that time in ordinary clothes was two hundred and forty pounds.

We were about four miles from home, and, taking our medicine-cases in our hands, we started to finish our joy-ride on foot. At the first cattle-guard, we found poor Bird, humped up and shivering, a great patch of skin torn from her shoulder. I kicked a few boards off the fence and got her through, thus saving us a detour of a couple of miles. Two miles out from town we came to a farmhouse just as the farmer was coming out of the barn with his lantern. We left Bird with him, after dressing her wound, borrowed his horse and buggy and thus saved ourselves the rest of the tramp, reaching home just at daylight. I sent a man after the buggy, rested a few hours, and then was away on a thirty-mile jaunt. But, as Kipling says, "That is another story."

To return to our patient. When Dr. Y— visited the young woman the next day, or rather the same day in the afternoon, he found her "clothed and in her right mind," sitting up and having her hair combed for the first time since the Sunday before.

A few days later, the young man in the case came to town, came to the office and inquired what was the matter with her. We answered him in Yankee fashion by asking, "Why were you there and why are you interested in knowing?"

He said, "We have been keeping company for some time and last Thursday night I had an appointment with her to go to a dance. I was sick and could not go, and I could not get word to her. She went with her brother and sisters, and some of my neighbor girls teased her by telling her I had gone to call on another girl. On Sunday she was at church and I went around to her to explain, but she whirled and left me and would not speak to me. That afternoon she took sick and I did not see her to talk to her until after you doctors left the other morning. Then I told her how it all happened."

There was my diagnosis confirmed, and thus do we see the folly and shortsightedness of

hysterical women who try to make some man "come across" by allowing themselves to let go of their nerve. (By the way, this young lady did not land him.) I have often seen similar cases in my years of practice. I have never seen what I could call hysterics in men, yet, they have them, just as well as do women; and when it comes to pain, men are more babyish than are the women folk.

W. O. BENNETT.

Pittsburg, Kan.

A CASE OF HYSTERIA

In the early years of my professional career, which were spent in a rural district ten miles from the nearest railroad, I had one unique and interesting experience that I am going to relate for the benefit of any colleague who may be subject to occasional spells of "the blues."

It was in the later weeks of a dry autumn that a freshly married farmer of the common, uneducated, very industrious and very unwealthy class appeared, riding a little frisky mule, at my front gate promptly every night at 2 o'clock, lustily yelling, "Hello doc, hello doc," until I acquired the habit of awaking at the hour of 2 every night, with that familiar "hello" in my ears, whether it was called or not. But, as I remember, the fellow called, as I have said, at the same hour night after night for fully two weeks, and always with the same tale of woe of "My wife's suffer'n terribly in that side agin."

Always the same man, the same mule, the same side, the same road—the latter through the woods most of the way and the frost often was glistening in the moonlight upon the very top twigs of the trees. When we arrived, we would find every time the same crowd, this consisting of the wife's father, mother, two sisters, and usually her only brother, all sitting around the open fire or making teas and poultices in the same way. Her complaint was the same every time. This family, by the way, was related to a doctor who lived quite a distance away, and he wanted to shift this practice onto me, as I found out later. And I did not blame him, either. The patient wanted him all the time.

Well, I had given the woman every remedy mentioned in therapeutics, and then some, for this, to me then, very peculiar ailment. I had given her opiates by hypo and by mouth, all the anodynes and sedatives, from acetanilid and bromides to veratrum and lobelia; I had exhausted hydro-, pyro-, and in a small way electrotherapy; in fact, had done every-

thing that I knew. Besides, they had secretly employed an old conjurer, as I afterward learned. But all, all without avail. The "misery" remained "unbearable." At times the woman would have the worst kind of convulsion: head and heels drawing almost together, as they said. In fact, I once saw one of her attacks of spasm, and this, I was told, was "nothing like some that she had had," although it was frightful to me.

There was one peculiarity that I noticed in her convulsions, namely, she was always conscious of what was going on about her. She would watch my every action and expression, but I failed to grasp the full significance of even that, so bewildered had I become in the excitement and anxiety of the whole household. I had reached the limit of my ability, and, upon leaving the place at about daybreak one morning, racking my brain for some rational mode of further procedure, I thought of my old preceptor, who lived about ten miles further in the country. So, I directed my horse thence, in search of light upon this unparalleled case.

Arriving at the village-home of my old friend and teacher, and after a brief general conversation, I arrived at the "magnum opus" of my errand. This my old friend seemed to have surmised, for he was smiling a treacherous way, as was his custom when contemplating some mischievous prank. However, I proceeded to relate the case to him fully and in detail, while he listened attentively, never asking a question. When I had finished with my "terrible" case, the old doctor laughed and laughed until big tears ran down his weather-beaten cheeks. I, on my part, though, failed to see the funny part of so serious a matter and was puzzled. At last he calmed down and seemed to realize my seriousness, but still would burst forth in an explosion of laughter every once in awhile, until I became somewhat nettled and asked him if he had any advice to give me, or not. The truth is, I had reached the point where I did not care much whether he did or didn't; I was growing emphatically indifferent as to his advice in the matter, anyway.

"Well," he said at last, "you have a tough case, my boy; but it is good for you—'twill teach you lots. And right now I'm going to tell you something that you will not want to believe, but it is the only way out for you, and it'll do the work."

Of course, I was all attention, but he kept on spurring out that little laugh every now and then, which at the time seemed to me rather silly. He continued: "I see, I see; yes,

I see. And they want Dr. B, eh? Well, he's their kinsman, is he not?"

"Well, yes," I answered, "but what of it?"

"Oh, yes, yes," he said. "Well, now (affectionately) Lewis, here's the trick. You go back, take with you this—this little vial," and he handed me a dram-vial of fluid extract of valerian. "This valerian, you know, is nothing much but a loud stinker and strong taster. Take this, go directly to those people, tell them you came to see me, and that we decided on this very 'powerful' drug as the last resort for her. Make them think, by every means you can, that it is something extraordinarily dangerous, but impress upon them that we both had decided to give it. Prepare a dose, give it to the woman yourself, and stay attentively by until it works, which will not be long. Then leave them just the least bit of it, with very cautious directions about giving it. Then go home and get the good rest that you need. You'll get it—see?"

Upon this, I started upon my journey back, much wiser already than I had been. Upon reaching the home of my patient, I found the whole crowd assembled there. It was just growing dark, but they were all there preparing for the usual night's ordeal, laying in plenty of firewood, pineknots, and so on, and all were going about with a saddened, almost hopeless expression. I dismounted, went directly into the house, told them at once where I had been, and portentously explained what we finally had decided upon. I took that little vial of valerian very carefully from my pocket, unwrapped it more cautiously, holding it well away from my face, asked for a teaspoon and some water, and enlarged all the time upon the extreme powerfulness of this drug, its great danger if not administered precisely right, and that it was given only in a case of this particular kind.

Now taking the teaspoon, I dropped one drop into the spoon, filled the latter with water, mixed the medicine thoroughly, then poured half of it into the ashes (not into the fire, "for it is explosive"), and directed the woman to take a sip of water first, then swallow the half-drop dose. She and the whole family were watching every procedure with wonder-waiting eyes. I then asked for the smallest vial to be found, and, to my surprise, they found a half-dram vial. This I had them clean—"perfectly," of course—and into it I dropped some of the wonderful (?) remedy. I gave directions to keep it well out of the reach of children, cats, dogs, and chickens; always in a dark, cool place, well away from

fire and where it might not be knocked off, for, as said, it was a "dangerous explosive." That, if they should happen to drop more than one drop, they must empty the spoon, wash it, and try again; and under no circumstances, ever to give more than one-half of a drop, and only three doses daily, and then for only three successive days. They must be very careful not to give one drop more or less, but give only as told, whatever happened, for that was the prescribed course.

Within less than three minutes, the woman spoke to me in a tremulous voice, saying, "Doctor, I feel that medicine plum into the ends of my very toes." And she did, no doubt, for it relieved her as completely as anything I ever saw act in my life. And, best of all, I never had to make another night ride to that home after that little precious dram-vial of fluidextractum valerianæ found its way into my armamentarium. And you can bet that I've kept that wonder-worker in my case ever since for just such cases as this one.

LEWIS W. SPRADLING.

Athens, Tenn.

[Read the preceding article on hysteria—then read this one. Hysteria is a disease—animal of variegated hue, changing its colors to fool the too-trusting and ever-sympathetic doctor. It fooled me once—and I never think of that case without a quiet chuckle.—ED.]

PROPHYLACTICS VERSUS THERAPEUTICS

Herbert Spencer, justly termed "the world's first really great systematic thinker," uttered a wise maxim when he said: "People never try the right way to right a wrong, until they have tried the wrong way." Many try every imaginable wrong way, and then die without having found the right way. Very much, of course, depends on the stage at which they have arrived in their mental evolution. But it is a wise provision of nature that it is only through many trials resulting in failures, so called, as well as successes that we finally succeed in attaining to the stature of the perfect man. Every failure, then, is a success, when viewed from the standpoint of the philosophy of evolution. In the last analysis, there are no failures. Every time we fall down we fall up.

But what has this to do with my subject? Much, very much, as we shall see. As man does not live by bread alone, so he should not

live for money alone. If he tries to, he soon finds that the love of it is "the root of all evil," or "a root of many evils," as the revised version of the Bible has it. In other words, there is a right way, as well as a wrong way, to live, and the more completely we live in harmony with nature's all-wise laws, the greater will be our satisfaction, and the more rapid our progress through the eternities. The greater also will be our reward. It seems to me that the doctor, above all others, should not only profit by a knowledge of such truths as these, but through the relation he occupies toward society, the obligation resting on him is correspondingly great to pass them on to his clientele.

In my practice, I have time and again been astonished to find that few, if any, instructions were given by my fellow practitioners to their patients concerning the avoidance of the most common causes of disease. It is well known to all who are broadly educated that fully nine-tenths of the diseases that flesh is said to be heir to are due to causes that are easily avoidable.

If doctors know this, why do they not tell their patients how to live right physiologically and thus avoid the inevitable results of the violation of nature's laws? Is not "an ounce of prevention better than a pound of cure"? People do not want to get sick. Disease is like war. Few, except the munitions manufacturers and ambitious war lords, want war. But we have it periodically, because we ignorantly take the road that leads to it. I think doctors above all others should live above the mercenary plane.

Doctors should be teachers as well as dispensers of pills and powders. Prophylactics should displace therapeutics as rapidly as possible. It is far better, safer, more economical, and immeasurably wiser to keep well than to go on blindly, get sick, suffer, be a burden and an expense to relatives or society and often die prematurely.

To illustrate: Before me lies a treatise on gout and rheumatism. The author says: "The most eminent authorities of the day concur with Alexander Haig in the opinion that the acting cause of these affections is an excess of urates in the economy." Very true. I found this out years ago, since which time I have avoided the causes that produce this "excess of urates," and, consequently, have no more rheumatism. Every patient whom I can get to follow my instructions, as to diet especially, enjoys perfect immunity from this dread disease. Physical ailments do not

come on us through a "mysterious dispensation of providence," as once was thought. It therefore gives me far greater satisfaction to tell people how to keep well and enjoy the life that nature intended for us than to prescribe the ordinary remedies and allow them to go on in their ignorance unwarned.

In China, it is said, the doctor is paid to instruct the people as to right living and to try to keep them well. But, then, they are "heathen," and don't know any better; and we are such a wise "Christian nation," you know. It is to the doctor's economic and financial interest here to keep the dear people in ignorance of these matters. How badly we need missionaries from the Orient! What will posterity think of us as it learns these facts? Till then, the people of our country must pay out three billion dollars a year and more, in an effort to get cured, and almost nothing to prevent disease.

Dr. G. M. Gould, a good authority, says that fully one-third of this could be easily prevented. How shortsighted, how unreasonable to continue to treat effects rather than causes. With a sane economic organization of society, protecting everyone in his right to work and to the full product of his effort, securing good and equal educational opportunities to all alike, fully nine-tenths of our diseases and most of our crimes and other abnormal conditions could be prevented. Then life would be worth living to all. Suicides, homicides, insanity, idiocy, our barbarous penal system, war, and other relics of savagery would vanish like mists before the rising sun.

Our educational system should include the whole body—physical culture—as well as the mind. It should aim at training for complete living. Eugenics should be taught in all our high schools and colleges. What a crime it is to train our young men in cadet clubs for war instead of peace. All alike should be trained as home-builders, home-protectors, and home-conservers. A nation of home-owners is invincible, but a homeless nation is ready for anarchy.

We must close with one more quotation from the world's greatest synthetic philosopher, Herbert Spencer. He says ("Data of Ethics," p. 83):

"For the production of the highest type of man can go on only *pari passu* with the production of the highest type of society—complete life in a complete society is but another name for complete equilibrium between the coordinated activities of each social unit and those of the aggregate of units."

Such a state of society is exactly what Socialism proposes. Had this condition existed in Europe, there would have been no war over there now. But the people evidently are not yet ready for it. May heaven hasten the day when our noble profession will respond to the call, already coming from millions of sad hearts, to teach the people how to avoid the causes that logically produce the direful results of which we all are so painfully cognizant.

S. J. BROWNSON.

Fort Worth, Texas.

IS THIS A MEDICINAL CURE FOR CANCER?

Among the ancients, there were certain swift runners whose mission it was to take a lighted torch and, speeding with windlike momentum, light up a signal-fire at a given elevated spot; then another runner would grasp the torch and speed on, and do like the one before him. And so on and on, from hilltop to hilltop. By this means was intelligence of a certain kind conveyed to the populace. It is my desire to place in the hand of some swift runner a lighted torch by means of which valuable intelligence may be disseminated among us of the medical craft.

Cancer has baffled treatment for so long that the watchers have grown weary looking for a cure or a therapeutic modification of this disease. What I have to say upon this subject is the result of my personal observation during many years.

A woman about 50 years of age abruptly entered my office one summer-day and, seating herself on the side of my operating-chair and throwing back the front of her dress, asked in broken English, "What is this? All the doctors in the town (and here she named all of them) say it is cancer."

The breast, I found, was enormous in size, more than four times normal. The nipple was entirely retracted and completely surrounded by wartlike growths. The axillary glands were greatly swollen, and knobby and knotty to the feel. Below the nipple about two inches there was an open sore, large enough to hide a hen's egg, and from this there was oozing a slimy discharge. The blood-vessels on the side and around the breast were like the snakey locks of a Medusa head.

I filled that sore with acetanilid (in impalpable powder), and then gave her enough for many dressings. I also gave her in one

vial 5 drops of mother tincture of phytolacca, and in another vial I gave her 5 drops of mother tincture of pulsatilla (both of Boericke & Tafel make). I then directed her to put the contents of each bottle in a separate glassful of water. One vial I marked No. 1, this to be taken before meals. The other, marked No. 2, she was to take after meals. The dose of each one teaspoonful scooped out of the respective tumbler. This prescription was repeated from time to time as the medicines were used up. This woman was still living and in fair health fifteen years later.

Some time following the first coming of the preceding patient, another German woman came to me and said, "I know what you have done for her"—naming the patient above referred to. "I want you to look at my breast. I can't wash, because the washboard hurts me; I can't go to church, for my corset hurts me. I feel a hard lump in the breast; there are enlarged axillary glands; I feel sharp, needlelike pains."

I gave her the same remedies mentioned above. After a few months, this woman ceased to come, and I lost track of her. However, the following season she and her daughter came to me and said: "Doctor, I have come for more medicine. My breast got so much better that I thought it would all go away and I should not need to be at so much expense." (I had charged her for the prescription fifty cents.) "But my cousin was here. He is, as you know, a great surgeon in California. He went home today after visiting here for several weeks. He was angry that I did not tell him before, for he would have cut it out and not charged me a cent. His railroad-tickets were stamped, so, he went away today. But he told my husband that he should take me to Chicago and have that lump cut out at once, for it was a bad cancer and would kill me. Then, just as soon as he was gone, I came to you. You helped me before, and I think you can again."

Then the daughter spoke up and said: "I will see that mother takes the medicine just as you direct. No matter how long it takes or what it costs."

I found the breast very sore and tender to the touch, with sharp pains. The glands were enlarged. In fact, it was a typical case. I repeated the prescription, and in two years it had removed all appreciable lesions and the patient was free from pain and discomfort. Twelve years later, this woman was taken ill away from home. The trouble was of an

intestinal nature. Upon her return, she was emaciated and suffered great pain. When I looked over her case, I thought it might possibly be a metastasis to the peritoneum or glands of the bowels, or that perchance her former trouble had not been entirely eradicated.

Acting on this supposition, I gave her, as soon as the conditions permitted, the *phytolacca* and *pulsatilla* prescriptions, and she gradually returned to her usual health.

Ten years later, I was called to the same patient, she then suffering from violent sciatica, as a complication of intestinal and other disorders. She confessed to me later, when the case assumed very grave aspects, that the old breast trouble had bothered her more or less for a year, but she had said nothing about it, as she did not wish to be complaining all the time. I told her that we had lost a whole year which we might never recover. As I was then taken sick myself, I could not treat her, and they changed doctors several times; one of whom, an Osteopath, she said, nearly killed her. Later, she was taken to Ann Arbor, when a rapidly growing uterine cancer was found, and of this she soon died.

A woman so wan and weak that she could hardly stand alone came slowly up the walk to my office-door, leaning on her sister's arm. She was in the last stages of cancer of the breast. Several of her relatives had died of cancer. She said to me: "We have seen the women you have helped, and I hope you can help me, too; however, I will not consent to an operation or the use of plasters." It seemed as though two or three weeks at most would wind up her earthly career, even under the very slow progress of cancer. I gave her the usual remedies and sent her away—but not at all rejoicing.

However, the woman refused to die; in fact, she began to mend, and she kept on improving. Now let me say that she was a woman of sixty-five years, was almost a hunchback (from a badly contorted spine), a great eater, and subject to many ailments—so, you can see what the prospects were. For all that, she slowly but surely mended, and in three months was able to walk out alone on the street; the glandular enlargements under the arm had vanished, and only the large lump persisted.

Now outside hindrances began to interfere; a bowel trouble was brought on by excessive feasting, and later she contracted bronchopneumonia from exposure. These made the use of my treatment impossible. So, after

many weeks, we had lost ground because of these conditions.

One day she was taking a bath, her husband assisting. He was an excellent nurse and a strong man, but subject to neuralgic attacks. Just as he was lifting her out of the tub, he was taken with a crick in his back, causing him to drop his wife and falling on top of her. Her cancerous breast caught on the edge of the bathtub under the weight, momentum and impact of the cruel blow. I was summoned, and I begged to be allowed to amputate at once. But, no. Two things had been at work—her fear of the knife, and the tongue of a meddlesome neighbor. The latter had told her of many wonderful cures made by the balmy oils of Doctor Blye, of Indianapolis. Consequently, I was dismissed. Not long afterward, the vital statistics reported one more death from cancer.

One more case and I am done.

Visiting one day at the home of a minister of the gospel, I was asked by his wife to come into the next room. This I did, and then immediately was asked to come into the following room. I noticed that, as I passed through a door, it was securely locked behind. This was repeated no less than four times, when at last we arrived in a bedroom in the rear of the house, with curtain tightly drawn.

This last door being also locked, the lady turned to me and said: "Doctor, what I am about to say to you I do not wish either my husband or my sons to know. Several years ago, my sister died of a cancer of the breast. It was my duty to care for her, and the memory of those fearful days and nights of suffering are with me yet like a frightful nightmare. For several months now, I find that I am following in my sister's footsteps. Look at this."

The lady uncovered her breast, and I beheld a cancer. Then, passing my hand under her arm, I felt the telltale enlargements. She said: "Neither my husband nor my sons know anything of this. If you can do nothing for me, say nothing about it. Only at the very last will I tell them."

It is said, there is no love like a woman's. Can you equal this example of love and heroism?

I gave the usual treatment, and at the end of the year she came joyfully to me and said, "It is all gone, the cancer." That was many years ago, and she is yet alive.

Now ye fast runners, here is the torch, hold it high, carry it far. I know not the medicinal action of these remedies, when

given in such dilution as to be able to feed the hungry cells, as milk feeds babies.

I am an old man—yours is the work.

C. S. COPE.

Detroit, Mich.

[I had the pleasure of meeting Doctor Cope at the meeting of the American Medical Association, in Detroit, last month, and I am more than ever convinced of his ability and sincerity. I have known him by correspondence for years, and respect his character and brain. If it were not for these facts I should hesitate to publish this article—for cancer is not a disease which permits of delays or of experiments. As a rule, the hope—and usually the only hope—lies in immediate surgical intervention. I wish to emphasize this, for it is possible that some few of our readers may be tempted to temporize, and to pin their faith to drugs at a time when the use of the knife is imperative.

I have given you the warning, but not for the purpose of discouraging the use of the remedies suggested by Doctor Cope. I hope they will be tried, and thoroughly, by many men, but without neglect of any indicated procedure, surgical or otherwise. Personally, of course, my leaning is toward the active principles, and I should use anemoin instead of pulsatilla, and a good concentration of the phytolacca. That, however, is a matter for everyone to decide for himself. If any of our readers give these remedies a trial I hope they will tell us what results they obtain.—Ed.]

UNLICENSED MIDWIVES

In the March issue of *CLINICAL MEDICINE*, page 272, I notice an article entitled, "Keep Friends With the Midwife." Now, that is exactly the proper thing to do, and the thing I always have done and always shall do, providing that these midwives are licensed. If they are not licensed by the state, then they have no more right to practice midwifery than I should have to practice medicine without a license.

Recently I made inquiry of our board of health, relative to certain women who were doing quite a business as midwives, at \$5.00 per case. The board informed me that the parties I referred to had no license and were practicing midwifery in violation of law. Yet, everybody for miles around supposed that these women did have state licenses.

Better investigate a little; maybe there are unlicensed women doing work that you your-

self should be doing. I asked several of my brother physicians whether such and such a woman had a license to practice midwifery, and they answered, "Yes, sure she has; she's been attending women for years." As a result of my investigation and further action, a warning-letter was sent by the board to the parties in question, and they have now quit practicing midwifery. The law is weak in the provision that anyone of the family may report births in case no physician is called. Unlicensed people should not be allowed to do that.

"KIRK."

—, Illinois.

A CASE OF BLACKWATER-FEVER IN THE JUNGLE

The towns of Tela and La Ceiba are hotbeds for hematuria, or hemoglobinuria, a disease of malarial origin. It is the cause of death of most of the white men that die in these regions.

Two months ago, I was in Tela, to where I went to visit my wife's grave. A young fellow, an electrician, asked permission to accompany me up to this country, of which he had heard so much, and I felt no inconvenience in taking him along. Waiting for a Carib craft to take us up the coast, we lost several days in Truxilla, and when we arrived at Brewer's Lagoon my friend complained of being sick. He confessed that he had felt indisposed for several weeks, but that the doctors had taken scant notice of his condition. I soon was able to diagnose his disease as hemoglobinuria—and I had a pretty hard case on hand, at that.

Fever was intermittent, but without the usual chill. I loaded the man in an open boat and kept right on up the Patuco River, as I wanted to get him away from the mosquitos of the swamps. Our food consisted in whatever I could get; sometimes, when passing an Indian village, it might be eggs and chickens, sometimes an iguana, or a deer or a pheasant. The sick man learned to suck raw eggs, of which during his ensuing convalescence he devoured a great lot.

My medication consisted in calomel, in broken doses, and bilein, followed by epsom salt. Quinine I gave in rather stiff doses—1-2 Gram once a day. I also gave copper sulphocarbolate, 1 grain divided into four doses, during the day. In addition, arbutin and lithium benzoate, 1 grain of each every two hours; arsenite of strychnine, 2 milli-

grams; the Abbott anemia and chlorosis granule, four times a day.

It rained almost every day, and when I arrived above the mosquito line I pitched camp on a small island having an extended sandy beach.

My friend grew very weak, but, after fifteen days, we were able to start on our return trip down the river, and, with the above as the only treatment, my patient made—well, I won't say an altogether "uneventful" recovery, for, he had several relapses; still, he got over it in the end. I kept him, though, for a long time on the following solution of epsom salt: 2 ounces of magnesium sulphate and 6 grains of copper phenolsulphonate dissolved in 10 ounces of water. Of this, he took a spoonful three times a day.

Several times I allowed him to drink coconut-water (the so-called milk), for its diuretic effect; but I soon discovered that it brought on a recrudescence of the symptoms, so, I stopped it.

A. R. HOLLMAN.

Brewer's Lagoon, Guatemala.

OBSTETRICAL FORCEPS

In regard to Doctor Ewing's suggestions for an obstetric forceps, printed in May CLINICAL MEDICINE (p. 445), I desire to offer my own idea of axis-traction. I hold that traction should be made in a line perpendicular from the point of resistance; in other words, the traction-force should be in a direct line from the point of resistance. For many reasons, but especially in order to preserve the sense of feel or touch, the axis-traction addition to the forceps should be as light as possible.

In my opinion, the Tarnier axis-traction forceps is too clumsy and has too much mechanism connecting the traction-force with the point of resistance; and this same objection applies to the forceps illustrated on page 445 of the article. The one shown on page 446 (No. 3), it seems to me, would not do at all, because the traction-force would pull "against the grain," as it were, that is, against the curve, and would not give the direct action of the humble little axis-traction hooks, in which the sense of feel and touch is maintained so well.

I have made an improvement, I think, on my axis-traction rods. When I bought them, the hook that went on the forceps was shaped with the point running straight in at right angle. This occasionally scratched or cut the baby's scalp, also it would slip off the

forceps too easily. So, I had the point turned downward at about 45 degrees, so that it fits against the shank of the forceps.

Another advantage in having the point turned downward is, that sometimes it is difficult to slip the hooks on the forceps after the latter are introduced rather high up, so that, if the tissues are swollen it may occasionally require two or three attempts to attach them. It saves time and unnecessary manipulation of the parts—always very important—that the hooks which I have can be placed on the blade of the forceps before it is introduced, placing the length of the hook along and against the forceps, holding both together lightly with the hand.

The hooks and handle which I bought were only long enough for my short forceps; so, I had a pair of hooks made with longer legs for my long forceps, and I like them very much.

C. W. HUNT.

Brevard, N. C.

[In the years gone by, when the present writer did much obstetric work, he had a pair of axis-traction rods, having bent hooks as they are described by Doctor Hunt, and no good reason appears to exist why these hooks should not always be bent in that manner. For practical purposes, however, the axis-traction rods were always left very carefully in the satchel; for, this writer found it quite feasible to do something like Pajot's maneuver as described by DeLee ("Principles and Practice of Obstetrics," 1913, pp. 982 and 984), except that the index- and the second-finger of the right hand made pressure downward on the forceps higher up than the lock. The sense of feel or touch, insisted upon with so much justice by Doctor Hunt, is a very important guide in the application of axis-traction, whether it be done with or without special appliances. It must be acquired and developed with great care by every obstetrician.—Ed.]

ACTION OF SUGAR AS A WOUND ANTISEPTIC

The destructive action of sugar upon anaerobic bacteria in wounds does not rest upon osmotic processes or the production of fermentation-acids, but, rather, K. Spiro asserts (*Muench. Med. Woch.*, 1915, p. 497), the sugar gives rise to a different bacterial flora, which tends to displace with a harmless one the malefic pathogenic ones.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

A LITTLE philosophy these hot days possibly may be quite as acceptable as a dissertation on some disease that wouldn't interest anyone but a doctor. What I am about to write may interest your patient even more than it will you. Let your patients read what I shall write for this issue and see how they like it.

Not infrequently in my "health-talks" to my patients at Mudlavia I talk along these lines, and it always makes a hit.

Assurance bordering on impudence seems to be the leading trait of many successful men. The time seems to have passed when the average man can succeed by modest and unassuming methods. All the nice things that have been said in favor of modesty fail to stand the test when brought into the pull and haul of everyday life. There will be found now and then a modest but an intensely earnest man who makes a great success in life; but such men are the exception.

If you are going to make yourself known, it is no longer the thing to pass out a card quietly. You must advance with a trumpet and blow a brazen blast loud enough to shake the stars. To stand with lifted hat and solicit a hearing, savorers of mendicancy and a humble spirit.

Bold assurance, while it disgusts some of us, will win nine times out of ten. The modest and diffident man may starve in a garret. There is but little chance for him in these strenuous days of the world's existence.

There seems to be nothing else nowadays so conducive to success as "cheek"; and the more cheekiness, the better. Modesty may be a good and a beautiful thing; but experience seems to prove that, if we wait for our turn in this world, our turn never will come.

But, oh! that we might pass out of this age of sordid, self-seeking, and impudent assertiveness into something larger, and sweeter, and finer!

Give us less yeast in our bread, and more substance; fill our cups with wine rather than froth; and, for sweet pity's sake, hang up the trombone and the bass-drum, and let

"silence, like a poultice, come to heal the blows of sound."

The food-question is as vital as the whisky-question. It begins with the first day of our life and links itself with the welfare of every human being every-day of his life. The wise solution of the food-question will contribute immensely toward man's health and happiness. Thousands of people suffer from starvation.

Many people nowadays are trying to live on vegetables alone or on "prepared" foods. People who limit their food to such stuff gradually starve to death. These things furnish food for fat and fuel for the lungs; but they fail to feed the brain, nerves, bones, and muscles, and, so, these important parts starve. And not only does the brain become uncertain in its action, but headache and neuralgia are common, the muscles become thin and weak, and, back of all this, the blood becomes so imperfect and poor that anemia and other taints are developed. Man should eat both vegetables and meat—but not too much at a time.

Give your stomach exercise. It will become lazy and weak if you live on "pre-digested" or "prepared" foods exclusively.

Praising others for what you would like to have praised in yourself is the very sublimity of blowing your own horn. Praise between man and man is so rare that we neither know how to bestow it nor how to receive it. The husbands who never have a word of praise for their wives, the wives who never have a thought of praising their husbands, and the parents who only find fault with their children are, I fear, in the majority.

Praise, but don't flatter. The difference between praise and flattery is as wide as that between praise and blame. The flatterer always is a scoundrel, and the glad receiver of his flattering falsehoods always is a fool. Praise is a legitimate tribute to worth and worthy doing; and, when a man does well, tell him of it. Do not wait until a man is dead before speaking of his good traits. Let us have a little more "taffy" before death

takes us, and less "epitaphy" afterward. It always is safe to praise a man who really deserves praise; and, moreover, it will do you yourself good to praise somebody else.

The man who utters honest praise is noble, and his friends soon recognize it. The man who receives honest praise does so without feeling humiliation, and is made strong by it.

If you wish to be recognized and appreciated for certain traits or good works done, praise those things in others. We people of this world lean on each other. We need encouragement with every step.

We need to give praise to those who deserve it, that we may keep ourselves unselfish and root out from ourselves all niggardliness.

Nature cannot be outraged with impunity. Although a generous giver, she is a hard bargainer; and invariably, in the long run, the man who works too hard, who crowds the work of forty years into twenty and burns the candle at both ends will find that he accomplishes less by attempting to overmatch or cheat her than by accepting her own terms. The mind is monarch of the body; but, if it ever so far forgets itself as to trample upon its slave the slave will rise and smite its oppressor.

In all likelihood, the man who toils and moils at business without relaxation or enjoyment, through the best years of life, with the hope of retiring at last and making the evening of life all holiday will never retire, except into an untimely grave.

The proper remedy for a period of unhealthy living is not, to work double tides, not an hour or two occupied in drawing off the remaining strength of an overtaxed system but now and then an entire day or week or month given to relaxation and renovation and to mere physical improvement.

Vacations and frequent holidays, though but for a day, are the true safety valves of professional and business men; and he who grants himself occasional rest not only will live longer, but will do more work than he who drudges from January to the last day of December.

Adversity has the same effect on a fool that a hornet has on a mule. It sets him to kicking back. If you are made of the right stuff, you will encounter the troubles and trials of life unflinchingly and uncomplainingly.

Adversity often is a blessing in disguise. The school of adversity graduates the ablest pupils; and the hill of difficulty is the best

of all "constitutionals" for the strengthening of mental backbone.

If you refrain from "kicking" when trouble comes to you, it is an evidence that you have the right stuff in your makeup. You need trials to develop your character. Great men can no more be made without their encountering trials than bricks can be made without fire. The furnace of adversity often purifies a man and separates the good metal of his nature from the dross by which it was obscured.

Do not "kick" back or even sit down and cry over these poor old "might have beens." Just accept what comes to you, and do your best, content to know that by and by will surely bring vacation-time, the unending holidays and eternal home.

Remember how many otherwise sweet natures lie all about you, spoiled by prosperity, like overripe apples in the sun.

Life all sunshine without shade, all happiness without sorrow, all pleasure without pain were not life at all and not worth living.

Be patient. That attitude of mind is the only remedy against the ills of life.

Eat to live, instead of living to eat. If there is any possible exception to this rule, as applied to human strength and development, it is with the young and growing child. However, surfeiting, even with proper food, is never advisable during any stage of life.

Old people, after the activities of life in a measure have passed by, should practice especial care in relation to food, air, and exercise. The latter should be performed out of choice, and because of the pleasant associations attending employment practicable in moderation and for the love of it.

Proper and needful exercise stimulates appetite and digestion, and it enables the aged person to eat to live, in lieu of living to eat, or of going through the ceremony of taking food at regular intervals, regardless of the demands of the system. Only very little food, even if of proper quality, can be digested and assimilated by the aged, unless continuous physical activity is kept up.

An excellent rule for people of advanced life is, first, never to take food unless appetite demands it; and, second, never to continue to eat until appetite is satisfied completely.

While this rule is good for all, it is especially desirable for those who have passed the middle mile-post of life, and its observance will prevent sluggishness of the liver and con-

sequent hypochondria, thus enhancing greatly the enjoyment of life.

The observance of proper hygiene is of especial importance to those in the evening of life, to the end that their last days may be spent in peace and comfort.

You must love your work, and not always be looking over the edge of it, wanting your play to begin. Put heart into your work, and do not look on it simply as a means of earning money. If you were in perfectly normal condition, you would find your greatest joy, as well as your highest ideal, in achievement.

These are conditions which an ordinary man who finds in his vocation only a mere interest to earn his bread and butter never knows. The majority of people are satisfied to do only that which they are obliged to do. They do not care to undertake more than conditions demand. They are always wishing that their circumstances were different, always bemoaning their hard luck in not having been born under a lucky star, or wailing because they have not been assigned to a less arduous task.

How few people ever enjoy the experience of doing a disagreeable task thoroughly or delight in the results of such labor! Many work in the fog and under clouds, rarely seeing the beauties of the sunlight about them. No one is normal who does not positively enjoy working, who does not feel that it is healthful exercise for mind, body, and soul.

Yet, men seldom are satisfied, constantly spurring themselves to do more, until their recuperative power is so exhausted that nothing is done as well as it might be if they took time to rest and renew their powers. All of their vigor is wasted in the very excess of ambitious stimulus, and they finally break down from overwork and from robbing themselves of sleep, nourishing food, and healthful exercise.

You must learn how to utilize to the best possible advantage all the physical and brain-force generated. Most people waste a large part of their powers—squander their brain- and nerve-force in a way which they would utterly condemn if, instead, they had wasted money.

Keep your teeth clean, and they won't decay. How shall they be kept clean? With a toothbrush, of course, says someone.

Yes, a toothbrush is a good thing, but one good toothpick is worth an armful of toothbrushes. The toothbrush does well in keeping the flat side of the teeth clean. But on those

flat surfaces the food does not stick, and, so, there is little tendency to decay.

The mouth is a warm place—nearly a hundred degrees by the thermometer. If we eat meat today for dinner, the little pieces which find their way between our teeth will be exposed to the heat of the mouth and begin to decompose before tomorrow noon. If these particles of food are left between our teeth and allowed to decompose, ought we to be surprised that the teeth and gums suffer? A toothbrush will not go between the teeth and remove those bits of food.

On rising from the table, use a goose-quill toothpick thoroughly, then rinse the mouth, so as to remove such particles as the toothpick may have left behind.

Before retiring at night, use a toothbrush and a good tooth powder. Do the same thing on rising in the morning.

Consult your dentist frequently, that your teeth may be kept in good condition.

“A laugh is worth a hundred groans in any market.” Laughter is undoubtedly one of nature's greatest tonics. It brings the disordered faculties into harmony, it lubricates the mental bearings and prevents the friction which monotonous exacting business engenders. It is a divine gift bestowed upon us as a life preserver, a health promoter, a joy-generator, a successmaker. Life, with the average man, is too serious, at best. Never lose an opportunity for relaxation from the stress and strain of your business or profession.

Every draught of laughter, like an air cushion, eases you over the jolts and the hard places on life's highway. It tends to bring every abnormal condition back to the normal. It is a panacea for heartaches, for life's bruises. It is a life prolonger. “Laughter is a positive sweetener of life; but, like good coffee, it must be well cleared of the grounds of ill will. There is nothing on earth more delightful to listen to than witty laughter, and nothing more tormenting than the silly and causeless cackling of fools. Between a laugh and a giggle, is the width of the horizon.”

Commend me to a good laugh—not that little snickering laugh, but a real laugh that will sound clear and round all over the house.

The first duty we owe a child is, to teach it to fling out its inborn gladness and joy with the same freedom and abandon as does the bobolink when it makes the meadow joyous with its song.

Learn to laugh, and to laugh aloud, with unrestraint.

Among the Books

TAYLOR: "CANCER"

Cancer: Its Study and Prevention. By Howard Canning Taylor, M. D. Philadelphia and New York: Lea & Febiger. 1915. Price \$2.50.

Doctor Taylor, in his preface, very pertinently reminds the reader that there are two phases of the treatment of the cancer-problem; one, the acquisition of more information regarding the disease; the other, the analysis and utilization of the data now in our possession. The former division of the subject is the task of the investigator and research-worker; the latter belongs to the clinician, aided by the patient.

Doctor Taylor thinks that neither the opportunity nor the obligation of the clinician to contribute to the general knowledge of cancer is grasped as clearly or is met as assiduously as they ought to be. He holds it to be the plain duty of all practitioners to preserve more accurate records of patients afflicted with cancer and to submit them to the clearing-house of general scrutiny. Moreover, while he is thus collecting data, it is equally, and perhaps even more emphatically, the duty of the physician to utilize to the best purpose the data already available.

The purpose of the present book is, to put together these facts and data and place them within the reach of the profession and of all others who may be interested in this gigantic, and heart-rending problem. The author's wide experience, as gynecologist to the Roosevelt Hospital at New York and as professor of the subject in Columbia University, enables him to speak with considerable authority and to support his statements with ample evidence.

FISHBERG: "PULMONARY TUBERCULOSIS"

Pulmonary Tuberculosis. By Maurice Fishberg, M. D. Philadelphia: Lea & Febiger. 1916. Price \$5.00.

The necessity of detailed special treatises on consumption, this widely prevalent disease, with its diversified and protean manifestations, becomes evident, among many

other things, from the apparently paradoxical clinical truth that *incipient* does not always mean *curable* tuberculosis, and, conversely, that *advanced* disease does not necessarily indicate a hopeless outlook. The reasons for this contrariness of tuberculous disease require careful study.

The author has based his views on the drug-treatment upon his experiences in New York. We have knowledge of a great many things, not mentioned in this book, which are of decided value at some time or other in the course of this disease. Also, the reviewer cannot agree with Doctor Fishberg in his rather dubious endorsement of specific treatment, being convinced that this is of far greater importance in the treatment of selected cases of the disease than the author is inclined to concede. Very naturally much depends upon the kind of "tuberculin" that is employed. When once a proper "antigen" will be available and when practitioners will be fully trained in its use and in the immunology of tuberculosis, we venture to predict that the morbidity and mortality of pulmonary tuberculosis will both diminish; more particularly after the idea of prophylactic immunization has found acceptance and has been put into practice.

CARLSON: "OBSTETRICAL QUIZ FOR NURSES"

The Obstetrical Quiz for Nurses: A Monograph on Obstetrics for the Graduate and the Undergraduate Nurse in the Lying-in Room. By Hilda Elizabeth Carlson. New York: The Rebman Company. 1915. Price \$1.50.

The author has attempted in this volume—somewhat extravagantly called a monograph—to arrange the salient facts that should be known to obstetrical nurses. As a whole, the task has been well performed and the information is given in simple and concise words. When, however, the author answers her question "What is jaundice?" by saying that it is "a yellow discoloration of the skin," we must differ with her most emphatically. It is to be hoped that this and other inaccuracies will be remedied in a subsequent edition of this, otherwise quite useful reminder

for nurses; also that it may not be made to replace textbooks, but be used to serve only as a means for rapid reference and to refresh the memory.

COOLIDGE: "DISEASES OF NOSE AND THROAT"

Diseases of the Nose and Throat. By Algernon Coolidge, A. B., M. D. Illustrated. Philadelphia: The W. B. Saunders Company. 1915. Price \$1.50.

While this little volume does not lay claim to present a complete treatise on the diseases dealt with and only promises to afford a guide for their study, the descriptions of diseases are very full and sufficient for the purposes of the general practitioner. To cite one instance, that of a "cold" is quite complete in its graphic details. It is in accordance with the nature of things that the treatment is usually mechanical—surgical. While drug-treatment, more particularly biologic treatment, is not neglected, it might have received a little more consideration, as it is, undoubtedly, effective in many instances.

"MEDICAL CLINICS OF CHICAGO"

The Medical Clinics of Chicago. Published by The W. B. Saunders Company, of Philadelphia. Price per year (6 numbers), paper, \$8.00; cloth, \$12.00. Vol. I, November (No. 3), 1915; and January, March, May, 1916.

The reviewer desires to emphasize the great practical value of publications of "clinics," that is, of lectures delivered before a class of students or physicians and illustrated by cases in point that are demonstrated to them and which they have an opportunity to examine. For the reader of such "clinics," it is hardly necessary to have the patient before him in order to benefit from the lectures; for, these are usually so clear and graphic that the practitioner will recall cases of his own falling within the description by which they may often be elucidated.

We believe that this form of publication has contributed in making the works of Trousseau, of Charcot, and of other great clinicians imperishable. It brings the salient points of clinical problems before the mind's eye far better than do the descriptions (so often dry-as-dust) found in textbooks; it makes us see concrete cases of disease, with their diversity and multiplicity of symptoms, and arranges them before us in an orderly manner for our guidance in examination and

study. In short, the clinical lectures tell us all the material points of a given disease—complex in such a manner that we may retain them and make them useful for practical everyday work.

On the other hand, textbooks present cold, lifeless dissertations on diseases in which the personal element is entirely wanting. Often it is impossible for the tired physician to engender sufficient enthusiasm to work his way through pages of text in order to establish the point that he is trying to find.

Textbooks are excellent for the student to obtain information upon diseases in general and in particular; they are of service to the physician to refresh his memory, as when he wishes to establish the differential diagnosis of a particular case of disease or to look up the etiology, symptomatology, treatment, and so on; and, finally, to round out and complete the information gained in actual clinics or in published clinical lectures.

For a live, interesting, and informing discussion of actual cases, clinical lectures by men who deserve to stand high in the medical profession are far superior to the usual publications, in their immediate, personal appeal. The "Medical Clinics of Chicago" form a good specimen of this class of medical literature. Reproducing the clinical lectures of some of our most noted clinicians, they present a wealth of information that makes them highly useful. To enumerate all the good things in the four numbers before us would mean to give a complete list of the contents; and that hardly seems necessary. Physicians will find a subscription for the "Clinics" an excellent investment.

GOULD: "MEDICAL DICTIONARY"

The Practitioner's Medical Dictionary. By George M. Gould, A. M., M. D. Third edition, revised and enlarged by R. J. E. Scott, M. A., M. D. Philadelphia: P. Blakiston's Son & Co. 1916. Price \$2.75.

This new edition of Gould's medical dictionary has been enlarged by the addition of some 20,000 new terms which have come into use since the publication of the last edition. It is a handy volume, containing definitions of over 70,000 medical terms. The type is clear, although rather small, at least for the eyes of the reviewer.

At the time of its publication a dictionary can only be announced; it can hardly be accorded a critical review until after close and frequent consultation for, say, six months or more. Those terms and definitions which

have been looked up are well given and explained. At all events, "Gould" has always been a great favorite among practitioners, as certainly it has deserved to be—not the least of its features having been the aim at linguistic purity and etymologic accuracy, not to mention the excellent illustrations and many useful tables. As to the present edition, the change, from the former ponderous and costly 2-volume style, to the present popular-priced edition, is worthy of especial note.

TRUDEAU: "AUTOBIOGRAPHY"

An Autobiography. By Edward L. Trudeau, M. D. Illustrated. Philadelphia: Lea & Febiger. 1916. Price \$2.00.

The history of the antituberculosis crusade in the United States is typified in the history of Doctor Trudeau. Beginning in a small way, tentatively, intuitively, in fact; then, with gained experience and under the stimulation of Brehmer's work, more courageously, but always empirically, his work progressed steadily, utilizing the acquirements of scientific research as they became known; always with an unconquerable enthusiasm and persistence that tore victory from the reluctant hands of adverse circumstances.

The account given by Doctor Trudeau himself in the simplest language, unaffected and without any attempt at literary scintillation, is a graphic description of an important chapter of the history of civilization because it bears on the awakening of the public consciousness to the need of guarding the people's health as one of the greatest assets of national wealth. Yet, it is simply a recital of his personal experiences, first in arresting the progress of the tuberculous disease, which had made his life in New York impossible, then in making the same beneficial influences in the Adirondacks available to others, particularly to those who could not enjoy them through their personal means, until in time, from small modest and even crude beginnings, the beautiful Adirondack Cottage Sanatorium of today stands as a monument of the indomitable courage and enthusiasm, the never-failing optimism of its founder.

A few things stand out strikingly in this personal account of Doctor Trudeau's experiences. First of all, his great faith in nature, in her kindly assistance to her sick children and as a corollary, his (one might say) childlike faith in, and certainty of, the loving guardianship of God. Then his persistence and undismayed tenacity of purpose

in working, experimenting, planning, continuing even though he had to feel his way and acquire knowledge, from experience, through many failures and handicapped by ill health.

One of the notable characteristics of Doctor Trudeau was his faculty of making lifelong friends, and this was manifested by the great affection in which they held him, even to opening their purses widely to his needs, needs that, yet, were not his personal ones, but those of his charges. And, finally, besides many other impressive and attractive traits, stands out preeminently his devotion to his wife, the constant, courageous, and helpful companion of his life and work, his helpmeet.

Doctor Trudeau, in his career, has overcome great difficulties, he has lived a rich life, that is, one by which thousands of others were benefited, as will be uncounted thousands to come. In the kindly, unassuming simplicity of his life, the steadfast forging ahead toward his goal—though this might be sensed but dimly—in the readiness to give credit to those who helped and aided him, Doctor Trudeau is a great man who lives in his work.

DEARBORN: "THE INFLUENCE OF JOY"

The Influence of Joy. By George Van Ness Dearborn, Ph. D., M. D. "Mind and Health" Series. Boston: Little, Brown & Co. 1916. Price \$1.00, net.

The author of this volume, Professor Dearborn, for years has made a special study of the physiology of the emotions—a task for which, as a physiologist and psychologist, he is particularly fitted. The results of this and other investigations on the subject should prove of deep interest to the physician, as well as of great service in his dealings with the sick, whose minds usually are as much in need of readjustment and reestablished equilibrium as are their bodies.

HOWARD: "THERAPEUTIC VALUE OF THE POTATO"

The Therapeutic Value of the Potato. By Heaton C. Howard. New York: Paul B. Hoeber. 1914. Price 50 cents.

This pamphlet is based upon an article contributed by the author to *The Lancet* (London) of April 11, 1914, in which he reported upon some interesting observations, to the effect that fomentations and other applications of potato-juice relieve the pain of swollen joints, and the like, in synovitis, gout, "rheumatism," and other like affections.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6224.—“Relief of Pain of Leg Ulcer.” G. L. S., Missouri, asks how we would proceed to relieve “the excruciating and unbearable pains in a case of leg ulcer of long standing.” Mechanical support elevating the limb, and the like, have afforded no relief whatever.

We can suggest several things that have been found of use. Menthol, 1 percent, in oxide of zinc ointment, usually acts as an effective local anesthetic. An ointment prepared from salicylic acid or sodium salicylate, in a base of lanolin, has the same action. A member of our staff strongly recommends orthoform.

It must not be forgotten that endophlebitis or thrombosis of one of the small vessels leading to the part, may stand in relation to pain and may require special treatment; and, finally, that the explanation of the obstinate and excessive agony in such cases often is found in a syphilitic history. All these are points which are offered for your consideration, and we must leave it to you to determine upon the best means to employ in any particular case.

QUERY 6225.—“Tachycardia of Obscure Origin.” J. R. M., Missouri, requests assistance in the following case. A woman patient, aged fifty-seven years; present weight 124 pounds—reduced from 132 pounds six weeks ago—has been ailing for four months and steadily losing weight, although her only complaint is that she gets spells of shortness of breath. She has attacks of marked cardiac palpitation. She has no cough, no asthma, no discernable heart lesion, no bladder symptoms, no headache, no dizzy spells. Her appetite is good and her bowels are regular, and generally she sleeps well; in fine, about all that she complains of is that shortness of breath, besides weakness. Any exertion brings on an attack, which will last for about a quarter to a half hour.

Unfortunately, the clinical picture offered, doctor, is not very clear. We have here a woman fifty-seven years of age, who is losing weight (lost 8 pounds in the last six weeks) and complains of attacks of shortness of breath, the only objective symptom being, rapid heart action for which there seems to be no organic basis, and general weakness. The attacks are brought on by exertion. The chemist's report on the analysis of the specimen of urine submitted shows an excessive elimination of total solids, also the presence of a trace of albumin, which means that there is some loss. Microscopical examination presents evidences of kidney disease, more particularly because of the presence of hyaline and granular casts and cylindroids; also of renal cells and red blood-cells.

We are not satisfied, either from the uranalysis or from the symptoms, that the renal affection is far advanced. The combination of short breath, rapid heart action, and general weakness rather leads us to suspect an intoxication with the internal secretion of the thyroid gland, and we should like to know whether there is any tremor, more particularly of the hands, also of the tongue when it is stretched out; furthermore, whether the thyroid gland is enlarged or indurated and whether any exophthalmos or bulging of the eyeballs is observable. In addition to this, it would be useful to know the blood pressure, both systolic and diastolic, taken at different times, sitting and lying down.

The attacks of tachycardia probably will be relieved by cactoid, 1-64 grain, placed on the tongue and allowed to dissolve there, the dose being repeated every ten minutes, when the symptoms are distressing, until the heart has quieted down. With that, the respiration also will be lowered.

In the way of general treatment, it will be well to make sure that elimination is sufficient. Even though the bowel action is said to be

"good," it will be well to give calomel, 1-10 grain every hour for ten doses, adding to every second dose 1-6 grain of podophyllin, and a laxative saline next morning—which latter may be repeated the second morning. If there are any symptoms of intestinal intoxication or of intestinal fermentation, the combined sulphocarbolates, and these followed by a course of the Bulgarian bacillus, will be of service.

It would be interesting to know the percentage of hemoglobin, as a further aid in determining the presence or absence of organic disease; otherwise, the purely neurasthenic or neurotic character of the woman's attacks must be kept in mind as a possibility. We do not suspect this possibility very seriously, though, because of the clear evidence of kidney disease.

QUERY 6226.—"Narcolepsy." C. N. S., New York, describes the case of G. H., a young unmarried woman of eighteen, who complains of excessive sleepiness. He writes: "Her family history is good. The patient lived in the East until about five years ago, when the family moved west. Previous to this time, she was supposed to be rather delicate, but one month after she moved she began to have her menstrual periods, and from then on improved in health and began to gain in weight. The menses now came regularly every twenty-eight days, without pain, for about eight months, when 'she took cold,' and she skipped one period. From that time on, her periods have been somewhat irregular, at one time having been suppressed for five months.

"About one year ago, she began having attacks of tonsillitis, and one month ago I removed her tonsils. For a year she has had attacks of what her doctor in the West called asthma. These may come on at any time, when she becomes choked up and short of breath; they last from one to four hours.

"The present complaint is, that she suffers from undue sleepiness. This condition began about three years ago and has been getting steadily worse. At that time, she was in school in Indiana and she says that she used to bite her lips and inside of her cheeks in an effort to keep awake. At one time, she went to sleep while eating her dinner and when some 175 other students were at the tables. Her sleepiness was not owing to lack of sleep at night, for she went to bed regularly at 9:30 p. m., and arose at 7:30 a. m.—but, feeling just as sleepy as when she went to bed. She frequently said to her mother that she felt

'so tired.' This condition has persisted until the present time. She may sit down in a chair in the middle of the day and in two minutes will be asleep, and so soundly that she has to be shaken to wake her. When she is asleep in the daytime, she sleeps quietly and does not dream, but during her night-sleep she dreams continually. Her dreams are generally of some such character as being chased and being unable to run, or similar disagreeable circumstances.

"Her habits are good, also her appetite; bowels are regular, moving at least once a day. She urinates four or five times during the day, once or twice at night; never experiences any burning or distress. She drinks considerable water, and uses no tea, coffee or alcoholic beverages. At the present time, she retires for the night at about 9 and arises at 7:30 or 8 o'clock.

"This young woman is 18 years of age; is 5 feet 3 inches in height; weighs 172 pounds (one year ago, she weighed 179 pounds); is very well developed; her hair is of fairly good length, not brittle, nor are there any bald spots, skin is clear and of fine texture; teeth are in excellent condition, no pyorrhea present; tongue is clean and of normal appearance; heart is normal as to size; heart-sounds are somewhat hard to hear, owing to the large amount of overlying fat, but they seem to be absolutely normal; no murmurs are audible; lungs are normal; abdomen and extremities are normal (genitalia were not examined); pupils are equal and react equally to light and accommodation; reflexes are normal; temperature is normal; pulse of good quality and is perfectly regular, rate 76; respirations is 17 to 18 per minute.

"Urine: normal in amount; specific gravity, 1021; fairly clear, amber-colored; slightly acid; no albumin nor sugar present; indican amount, normal; microscope reveals nothing but an occasional leukocyte or epithelial cell. Blood: hemoglobin, 80 to 85 percent; leukocytes, 8000; erythrocytes, 5,950,000. No differential count was done. No Wassermann test was taken.

"The patient's general appearance is one of robust, good health. She is of what would be termed a lymphatic temperament, one of the even-tempered individuals who seem to be 'always of the same even disposition.' One hardly could call her face expressionless, indicative of a possible myxedematous condition." So far this exceptionally fine presentation.

Some three or four years ago, a very similar condition was reported by one of our corre-

spondents, and at the time the nature and the causes of excessive somnolency were discussed at some length in this department. As a matter of fact, narcolepsy—the technical term—has not received much attention by the authors of textbooks; however, a most interesting article on the subject, contributed by Dr. Thos. W. Harvey, of Orange, New Jersey, appears in volume iv of "International Clinics," 21st series.

It is generally stated that excessive somnolency is to be regarded as a symptom of approaching uremia or diabetic coma. The condition, of course, is also observed in tumor or abscess of the brain or in cerebral syphilis. With an organic cause excluded, it may be the result of intoxication (gastrointestinal) or a manifestation of obesity, hysteria or epilepsy. Naturally, the management of each case must be based upon a rational conception of the causative condition; unless properly diagnosed, medication is not likely to prove of value.

Raymond describes narcolepsy as "a disease characterized by a sudden and irresistible inclination to sleep, coming upon the individual outside the hours usually passed in slumber, which is more or less periodic and may be of variable duration." He says further that such form of sleepiness may be owing to general diseases, as, for instance, gout or rheumatism, or renal, hepatic or gastrointestinal intoxications. It also may be attributable to obesity—and we observe that this patient is decidedly obese. He says that "there is a very strong resemblance to epilepsy, in certain cases." Two cases described by him, very much resemble petit-mal. He thinks that most cases of narcolepsy, not associated with or dependent on some incurable disease, have a tendency to get well under conditions favorable to good health.

You will remember, of course, the fat boy in Dickens' "Pickwick Papers," of whom the squire frequently remarked, "Damn that boy; there he is—asleep again." You will also realize that most fat people have a tendency to be more or less somnolent at times, especially if their elimination is poor. Hence, the popular expression, "a sleepy fathead." Several writers recognize the association of excessive somnolency with obesity and have considered it to be caused by certain hitherto unrecognized toxins.

One case is described in the literature in which the attacks of sleep were induced by any pleasurable emotion; then, again, such profound unconsciousness has occurred only

in the dentist's chair or while the individual was undergoing some minor operation without an anesthetic.

In a case mentioned by Harvey, a young woman, during her first pregnancy, would fall asleep and remain somnolent for two or three hours, and during this period could be aroused only with difficulty. Strangely enough, at her confinement, such a seizure occurred and she slept through the last expulsive pains without the slightest knowledge of what was going on.

Doctor Dana, in a recent interesting paper discussing the phenomena of sleep, divides the attacks of narcolepsy into three groups: (1) Epileptoid sleeping states corresponding to petit-mal; (2) hysterical sleeping states; (3) cases when it is difficult to find a cause. The predisposing cause is, a neuropathic constitution. Among other exciting causes, he mentions malaria.

In the case under consideration, if it is at all possible, we should make a thorough examination of the reproductive organs. We should also institute thorough eliminative measures—renal, dermal, and intestinal—and place the young woman on a low protein diet. Do not forget the possibility of thyroid insufficiency. On general principles, we should be inclined to administer small doses of thyroid gland, preferably in conjunction with the arsenates of iron, quinine, and strychnine. Change of scene and surroundings should also be recommended.

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QUERY 6227.—"Proof of Value of Active Principles." M. B., Nebraska, in a most interesting letter, advances his present opinion (which further experience will, we hope, modify) of the active principles and "positive-therapeutics" methods generally. He writes:

"My father, after many years of their use, is a firm believer in the active principles. Perhaps they are good; I am always open to conviction on these things, but I have had nine years of the most rigid kind of scientific training and have acquired habits of skepticism relative to everything that has not been accurately checked by laboratory methods. When I read the enthusiastic letters of members of your 'family,' I can sympathize with their enthusiasm; but there come into my mind the thousand and one avenues of error which may beset their observations.

"My training was received at — Medical College. As you know, their pharmaceutical horizon is limited and their faith in the specific and selective action of drugs very

scant. But, their methods of arriving at conclusions have appealed to me; I have worked with them and they seem correct.

"Your teachings would be beautiful, if they could be shown to be true. I wish I could believe in them. But how do I know they are true? I do not say they are not. I merely say, I do not know. Must I take the word of clinical observers as to what they *thought* they saw, without a single measurement or a single accurate quantity reported? I observe that chiropractors (and I mean not the least opprobrium by this comparison, and should not think of putting you in the same class with those people; still, it makes a good illustration, if you will pardon it) also are very enthusiastic about their methods, after many years of practice and clinical observation. So, likewise, are Christian Scientists. Please pardon my writing this way. I do not know for what particular purpose I am doing so, but I can give my reason: I am puzzled."

First of all, doctor, let us point out that the active principles are definite chemical substances, and they are just as definitely acting remedial agents. If you will study the action of the alkaloids and allied products, you will surely have no difficulty whatever in convincing yourself that in administering these substances in small repeated doses to effect (remedial or physiological), you are practicing a precise therapy.

As a matter of fact, in years gone by, this entire field has been thoroughly covered, not once, but many, many times, and thousands of physicians throughout the country who, like your father, used the alkaloids and allied products know from experience (and, after all, experience is the best teacher) that the agents and methods we have so strongly recommended produce results heretofore deemed "impossible" of accomplishment.

You ask, "Must I take the word of clinical observers as to what they thought they saw?" No, indeed. You must simply accept their statements as a *basis* upon which to build your own observations. Still, it is fairly safe to assume that if several hundreds or thousands of common-sense, successful practitioners see the same thing they may be credited with a reasonable clarity of vision. For instance, if you give A 1-6 of a grain of calomel every half hour for four to six doses and secure as satisfactory calomel-action as would follow the administration of five times the amount of drug in one dose, without the undesirable action of the latter, you, naturally, are inclined to repeat that treatment; then, if B, C, D, and E all respond in exactly the

same way, and you find that several hundred other practitioners also had precisely the same experience, you are reasonably safe in assuming that the small dose repeated at short intervals to effect, produces more desirable results than will a single large dose.

We, perforce, until we have had wide and varied experience, have to accept the evidence of other people. For instance, a child very soon finds out that unpleasant sensations follow the application of the bare finger to a hot stove lid; you may never have put your finger upon a red hot stove, but, if you are told it will hurt if you do, you do not show a very great amount of common sense (though you may reveal an investigative nature) if you put your finger on the next piece of hot iron you find. Then, if you do so, I am quite positive that from that time forward you will assert positively that the contact of human tissue with hot iron produces vesication and pain even though the action of the hot iron upon the human tissue has not been demonstrated to you microscopically. Another illustration: You are hungry and you have been led from your infancy, to believe that that feeling of emptiness in the region of the "equator" can be assuaged by the putting of food into the mouth. As a result, you eat and feel satisfied, and every time you feel hungry and eat the sense of hunger disappears. You only have the evidence of your sensations, because it is impossible for you to demonstrate each and every time with the test tube and microscope that the food you had in your mouth is assimilated by the cells and does not pass unchanged through the digestive tract.

Certain definite results invariably follow the execution of certain actions, and there is sufficient evidence to warrant you in testing the active principles along the lines laid down by prior observers.

Do not for one moment believe, doctor, that all these observations have been made by clinicians. An immense amount of laboratory work has been and is being done, and there is hardly an active principle that has not been physiologically tested time and time again. You can easily verify this statement by consulting, for instance, the files of the *Archiv f. experimentelle Pathologie u. Pharmacologie*.

There is a vast difference between the educated physician seeking the best available means to obtain a desired result and the Chiropractor who, as you say, is enthusiastic about his methods. His enthusiasm is based entirely upon the monetary returns that will

follow his manipulations. The true physician, as you know, also sometimes gets a monetary return, but quite often has merely the satisfaction of knowing that he has conquered a disease-process that otherwise would have crippled or destroyed a fellow human being.

Please, do not for one moment confound Osteopaths, Chiropractors, Christian Scientists, and all that ilk with the positive therapist.

Doctor, your letter proves that your intellect is too keen and your analytical sense too well developed to cause you to "balk" at a trial of tried remedial agents simply because each one of them has not been definitely tested by you in the laboratory. We of THE CLINIC are doing most of that work for the practitioner, and when we present a product you may rest assured that it is as nearly perfect as modern scientific methods will permit.

QUERY 6228.—"Aletris Farinosa Is False Unicorn." C. W. H., Texas, says that aletrin is alleged to come from aletris farinosa, or true unicorn, while by others false unicorn is given as the source. Which is right? There is a vast difference, he points out, between the action of true and of false unicorn, and to use them interchangeably might mean trouble.

Aletrin, or, rather, aleteroid (for it is a concentration) represents the combined principles of aletris farinosa (false unicorn root, blazing-star, stargrass, starwort). The name unicorn root is more properly applied to chamælorium, or helonias.

As you are aware, the commercial drug supplied under the name of aletris farinosa is generally the root of chamælorium. The two kinds of roots have no resemblance, in fact, are utterly unlike; yet, the substitution of chamælorium for aletris has been so general that Professor King, in a description of the root of aletris, describes that of chamælorium, and the American Dispensatory states that, owing to "the confusion which resulted from the substitution of the root of aletris for helonias, very erroneous statements had been made regarding the status of the drug."

Felter (Amer. Disp.) considers aletris as being a simple bitter tonic and stomachic, and as such recommends its use in indigestion, anorexia, flatulence, colic, borborygmi, and so on. A good preparation of aletris farinosa does, unquestionably, exert a tonic influence upon the reproductive organs, and may be given in conjunction with helonias. The

latter drug has also been found beneficial in dyspepsia, anorexia, malassimilation, and so on.

The two drugs are fully described and the nomenclature is commented upon in King's American Dispensatory.

QUERY 6229.—"Metritis. Ulceration of Cervix." E. T. S., Ohio, writes: "One class of patients that gives me considerable trouble consists of women that are or have been married and who present a large, boggy uterus, usually an ulcerated os, with either a thick and purulent or gelatinous discharge continually covering the mouth of the womb; also, some pain in one or both ovaries. These women usually are 'run down,' always feeling tired. What can be done with these patients, without performing operation?"

Women suffering from chronic metritis and cervical catarrh usually respond promptly to hot alkaline antiseptic douches and the subsequent application of magnesium-sulphate (depleting) suppositories. The treatment of these and similar conditions is described fully in the articles headed "The General Practitioner as a Gynecologist," published in these pages during 1911 and 1912, especially the first article, which appeared in the January, 1912, issue.

Where eroded or ulcerated areas exist, first relieve the uterine congestion with the douches and suppositories, and then apply to the cervix, with a cotton mop, a solution of silver nucleinate; then pack the vagina with gauze strips the upper end of which has been saturated with a combination of ichthyol, iodine, and glycerin. An excellent formula is this: Ichthyol, 2 drams; tincture of iodine, 1 dram; boroglyceride, 2 drams, glycerin, sufficient to make 4 ounces.

The iodine- and ichthyol-content may be increased. Practically the same results may be secured with equal parts of carbenzol and some bland oil. The gauze should not be allowed to remain in place longer than for forty-eight hours. Before replacing, a copious douche should be administered.

Internally, some such tonic as the arsenates with nuclein will be indicated.

QUERY 6230.—"Keloid?" J. A. J. Illinois is treating what he considers a keloid in a scar consequent upon an operation for gallstones. About a year ago, the Doctor applied light treatment, using a 1000 watt light. He gave daily treatments for five days, then a sitting every third day, for five treatments, and, finally, once a week for two treatments—

twelve treatments in all; with these results: The color of the scar tissue changed from purple to a bright red, with a pale-red area along the edges and at the ends of the scar. All pain and tenderness had left, but these began to show again toward the end of the second seven-day of the light treatments. The area is not at present as hard as it was before the light was applied. Our correspondent wants to know how long it will take for a cure, if such is possible.

You are aware of course, doctor, of the fact that the treatment of keloid is extremely unsatisfactory, in that it requires a very long time. Some excellent results, however, have followed the long-continued use of the x-rays after the excision of the growth.

J. Keogh Murphy an English surgeon, advocates treatment by means of chlorinations (i. e., applying sodium-chloride in solution on the negative electrode of a battery), but insists that the treatment must be thorough and continuous. He also asserts that x-ray treatment is likely to give even better results.

The present writer is inclined to think that your patient's condition probably would be benefited by applications of thiosinamin compound, which, as you know, counteracts the overproduction and degeneration of connective-tissue cells. This preparation would have to be used hypodermically, of course.

Your own experience suggests that the treatment which you employed was beneficial, but that you did not give "dose enough" and also applied the treatments at too long intervals. The indication certainly seems to be that you continue the same form of treatment, only more frequently—say, once in four, five or six days, according to results received—while, also, you might combine it with the thiosinamin compound.

QUERY 6231.—"Arsenical Paste." E. T. McG., Nebraska, writes: "I have a patient who has a cancer on the lower eyelid extending around to the center and up on the upper lid also. I have seen a 'cancer cure,' consisting of zinc chloride and pulverized sanguinaria root, recommended. Is water to be used in making this paste? Also, should some of this paste get into the eye or on the eyeball, what would be the result? Would it destroy the eye? Lastly, what, in your opinion, is the best cancer paste?"

If this is an epithelioma, location is unfortunate and caustics must be used with great care in the neighborhood of the eye. Any arsenical or zinc paste coming in contact with the eye would certainly imperil it; in any event intense pain and a rebellious lesion would result.

One method of treating such neoplasms is as follows: Mix arsenous acid, 1 dram, and powdered acacia, 2 drams. With the aid of water make this into a paste about the thickness of a rich cream, mixing enough to cover the lesion. But be sure to cleanse the sore thoroughly first with hydrogen peroxide and then with boric-acid solution, drying well with cotton. Leave this paste (laid on about the thickness of a silver quarter) in contact with the cancerous growth for twenty-four hours. The pain will be considerable and there will be some swelling and induration about the affected part. At the end of that period remove the arsenical paste and apply some one of the glycerinized kaolin pastes on the market, hot and thick; repeating constantly until the slough separates and falls away. Now you will have a clean sore to deal with. Cleanse this well, dry, apply a few small skin grafts and dress with bovineine, prepared bovine blood or sanguiferrin on iodoform gauze, protecting the grafts with a strip of perforated rubber tissue; over the bovineine-soaked gauze place another sheet of rubber tissue to retain the moisture, then some cotton and, last of all, a snug bandage. We believe this is the best method of handling skin cancer.

Internally push arsenic, nuclein, conduran-gin, and chelidonine.

The *poudre caustique de Frere Cosme* (a celebrated French formula) has the following composition: Acidi arseniosi, grains 10; hydrargyri sulphidi nigri, grains 40; pulveris carbonis animalis, grains 10. The powder is made into a paste with a thin acacia mucilage and applied as described.

In the present instance you might find it preferable to adopt Candler's plan, namely, to 75 parts each of ethylic alcohol and distilled water add 1 part of arsenous acid. Clean up and dry the lesion and apply the fluid thoroughly. In twenty-four hours an eschar will have formed. Then keep on a poultice till the eschar separates, applying between the poultice and surface one thickness of gauze soaked in thuja.

